



# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 142501**

**TO: Rei-Tsang Shiao**  
**Location: 5a10 / 5c18**  
**Saturday, January 15, 2005**  
**Art Unit: 1626**  
**Phone: 272-0707**  
**Serial Number: 09 / 748006**

**From: Jan Delaval**  
**Location: Biotech-Chem Library**  
**Rem 1a51**  
**Phone: 272-2504**

**[jan.delaval@uspto.gov](mailto:jan.delaval@uspto.gov)**

### **Search Notes**

Jan Delavail  
for search

Access DB# 142501

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Robert (Rety) Shin Examiner # 7952 Date: 1/13/05  
Art Unit: 1626 Phone Number: 2-0707 Serial Number: 107 09748006  
Mail Box and Bldg/Room Location: 3A10/5C18 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

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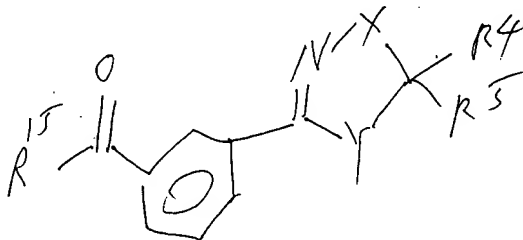
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: 3-heterocycle-sub Benzoyl  
Inventors (please provide full names): Deyn et al.

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

I search opd I



\* R4, R5, R15 are  
sub, R15 is heterocycle  
or heterocycle

\* X is O, S, N, C

\* Y is O, S, N, C

II method of use of opd I

### STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>Jan</u>	NA Sequence (#) _____	STN <u>✓</u>
Searcher Phone #: <u>22504</u>	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>✓</u>	Questel/Orbit _____
Date Searcher Picked Up: <u>1/15/05</u>	Bibliographic _____	Dr.Link _____
Date Returned: <u>1/15/05</u>	Linkage _____	Lexis/Nexis _____
Searcher Prep & Review Time _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: <u>20</u>	Patent Family _____	WWW/Internet _____
Online Time: <u>+55</u>	Other _____	Other (specify) _____

=> fil reg

FILE 'REGISTRY' ENTERED AT 10:00:18 ON 15 JAN 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 12 JAN 2005 HIGHEST RN 812631-13-3

DICTIONARY FILE UPDATES: 12 JAN 2005 HIGHEST RN 812631-13-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

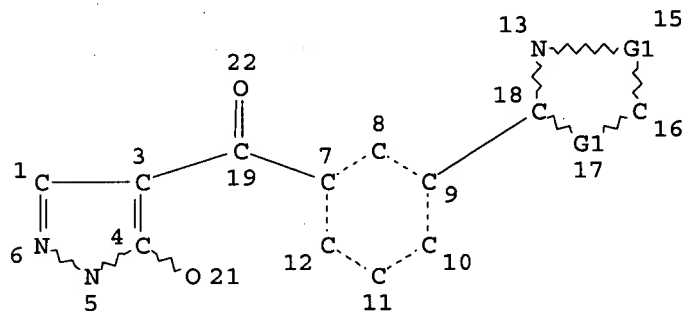
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d sta que l24

L7 STR



VAR G1=O/S/N/C

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

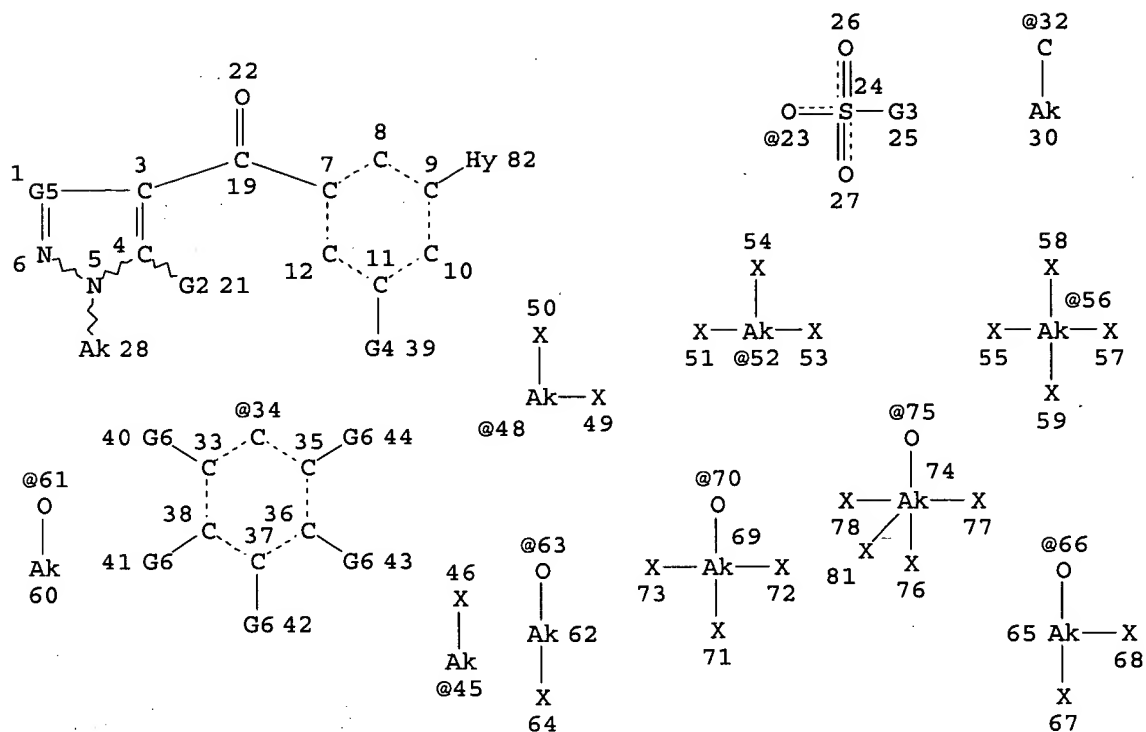
RSPEC 9 3

NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE

L9 410 SEA FILE=REGISTRY SSS FUL L7

L15 STR



VAR G2=O/23  
 VAR G3=AK/45/48/52/56/34  
 VAR G4=H/X/AK  
 VAR G5=C/32  
 VAR G6=H/X/NO2/CN/AK/45/48/52/56/61/63/66/70/75

# NODE ATTRIBUTES:

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DEFAULT MLEVEL IS ATOM

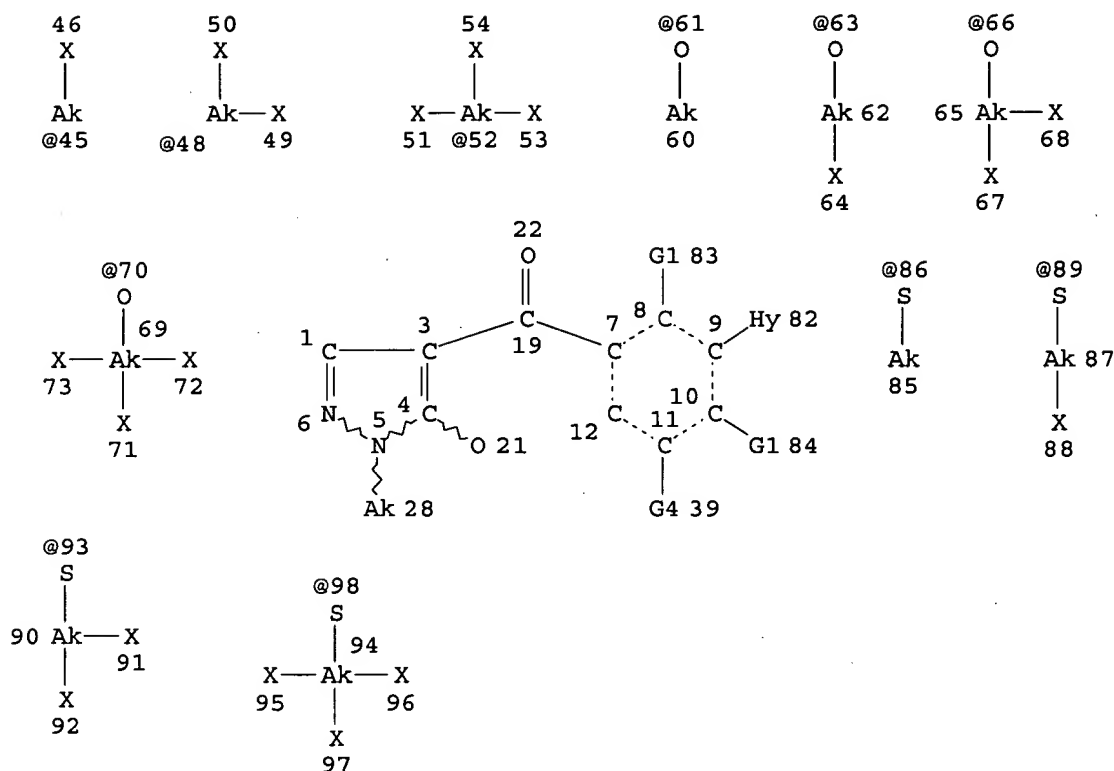
DEFAULT ECLEVEL IS LIMITED

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RSPEC 33 9 3  
 NUMBER OF NODES IS 69

# STEREO ATTRIBUTES: NONE

L16 263 SEA FILE=REGISTRY SUB=L9 CSS FUL L15  
 L17 STR



VAR G1=H/NO2/X/CN/AK/45/48/52/61/63/66/70/86/89/93/98

VAR G4=H/X/AK

NODE ATTRIBUTES:

CONNECT IS M1 RC AT 1  
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DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC 9 3  
 NUMBER OF NODES IS 56

STEREO ATTRIBUTES: NONE

L19 263 SEA FILE=REGISTRY SUB=L16 CSS FUL L17  
 L20 98 SEA FILE=REGISTRY ABB=ON PLU=ON L19 AND NC>=2  
 L21 86 SEA FILE=REGISTRY ABB=ON PLU=ON L20 AND (MXS OR IDS OR PMS)/CI  
 L22 12 SEA FILE=REGISTRY ABB=ON PLU=ON L20 NOT L21  
 L23 165 SEA FILE=REGISTRY ABB=ON PLU=ON L19 NOT L20  
 L24 177 SEA FILE=REGISTRY ABB=ON PLU=ON (L22 OR L23)

=> d his

(FILE 'HOME' ENTERED AT 09:08:53 ON 15 JAN 2005)

SET COST OFF

FILE 'REGISTRY' ENTERED AT 09:09:03 ON 15 JAN 2005

L1 STR  
L2 20 S L1

FILE 'HCAPLUS' ENTERED AT 09:12:46 ON 15 JAN 2005

L3 3 S US20020025910/PN OR (US2000-748006# OR US98-091300# OR WO98-E  
SEL RN

FILE 'REGISTRY' ENTERED AT 09:13:45 ON 15 JAN 2005

L4 401 S E1-E401  
L5 STR L1  
L6 15 S L5 CSS SAM  
L7 STR L1  
L8 20 S L7  
L9 410 S L7 FUL  
SAV L9 SHIAO748/A  
L10 213 S L4 AND L9  
L11 232 S L4 AND N2C3/ES AND 46.150.18/RID AND NR>=3  
L12 19 S L11 NOT L10  
L13 9 S L12 NOT (SCSC2 OR OCOC3 OR NCSC3)/ES  
SEL RN 1 5 6 7  
L14 5 S L13 NOT E402-E405  
L15 STR L5  
L16 263 S L15 CSS FUL SUB=L9  
SAV L16 SHIAO748A/A  
L17 STR L15  
L18 15 S L17 CSS SAM SUB=L16  
L19 263 S L17 CSS FUL SUB=L16  
SAV L19 SHIAO748B/A  
L20 98 S L19 AND NC>=2  
L21 86 S L20 AND (MXS OR IDS OR PMS)/CI  
L22 12 S L20 NOT L21  
L23 165 S L19 NOT L20  
L24 177 S L22,L23  
L25 33 S L9 AND NCSC2/ES  
L26 5 S L25 AND DIHYDRO

FILE 'HCAPLUS' ENTERED AT 09:53:12 ON 15 JAN 2005

L27 29 S L24  
L28 2 S L27 AND L3  
L29 12 S L27 AND (PD<=19980616 OR PRD<=19980616 OR AD<=19980616)  
L30 9 S L27 AND (PD<=19980108 OR PRD<=19980108 OR AD<=19980108)  
L31 3 S L29 NOT L30  
L32 12 S L28-L31  
L33 7 S L32 AND BASF?/PA,CS  
L34 7 S L32 AND (VON DEYN ? OR VONDEYN ? OR DEYN ? OR HILL ? OR KARDO  
L35 7 S L33,L34  
L36 5 S L32 NOT L35  
SEL DN AN L35 5 6  
L37 2 S L35 AND E406-E411  
L38 5 S L35 NOT L37  
L39 1 S L3 NOT L37,L38

FILE 'REGISTRY' ENTERED AT 09:59:21 ON 15 JAN 2005

L40 32 S L4 AND NCSC2/ES

FILE 'REGISTRY' ENTERED AT 10:00:18 ON 15 JAN 2005

=&gt; fil hcaplus

FILE 'HCAPLUS' ENTERED AT 10:00:28 ON 15 JAN 2005

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FILE COVERS 1907 - 15 Jan 2005 VOL 142 ISS 4  
FILE LAST UPDATED: 14 Jan 2005 (20050114/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l36 all hitstr tot

L36 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 1999:572042 HCAPLUS  
DN 131:214283  
ED Entered STN: 09 Sep 1999  
TI Preparation of benzoylpyrazole derivatives as herbicides  
IN Adachi, Hiroyuki; Tanaka, Katsunori; Takahashi, Akihiro; Koguchi, Masami  
PA Nippon Soda Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 25 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
IC ICM C07D261-04  
ICS A01N043-80; C07D413-10  
CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))  
Section cross-reference(s): 5

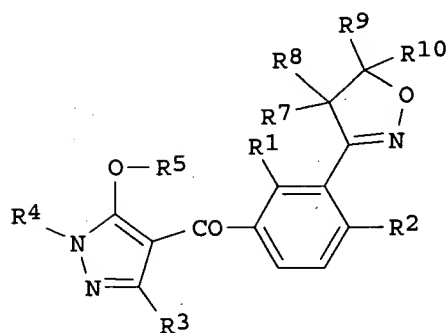
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11240872	A2	19990907	JP 1998-308446	19981029 <--
PRAI	JP 1997-299208	A	19971030	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 11240872	ICM	C07D261-04
	ICS	A01N043-80; C07D413-10

OS MARPAT 131:214283  
GI



AB The title compds. I [R1 = alkyl; R2 = alkylthio, etc.; R3, R4 = H, alkyl; R5 = H, etc.; R7 - R10 = H, alkyl; or R7 (or R8) may together form with R9 (or R10) a bond] are prepared The title compds. I [R1 = R4 = methyl; R2 = SO<sub>2</sub>Me; R3 = R5 = H; R7 = R8 = R9 = R10 = H] (at 63 g/ha) gave 100% control of *Abutilon avicennae*.

ST benzoylpyrazole prepn herbicide

IT Herbicides

(preparation of benzoylpyrazole derivs. as herbicides)

IT 210631-68-8P 210631-72-4P 223646-33-1P 223646-34-2P

223646-35-3P 243445-01-4P 243445-02-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of benzoylpyrazole derivs. as herbicides)

IT 70-11-1, Phenacyl bromide 74-85-1, Ethene, reactions 74-86-2, Acetylene, reactions 100-39-0, Benzyl bromide 5470-11-1, Hydroxylamine hydrochloride 33641-16-6 106903-47-3 128277-72-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of benzoylpyrazole derivs. as herbicides)

IT 196819-81-5P 196819-82-6P 223646-22-8P 223646-23-9P 223646-24-0P

223646-25-1P 223646-26-2P 223646-27-3P 223646-28-4P 223646-29-5P

223646-30-8P 223646-31-9P 223646-32-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of benzoylpyrazole derivs. as herbicides)

IT 210631-68-8P 210631-72-4P 223646-35-3P

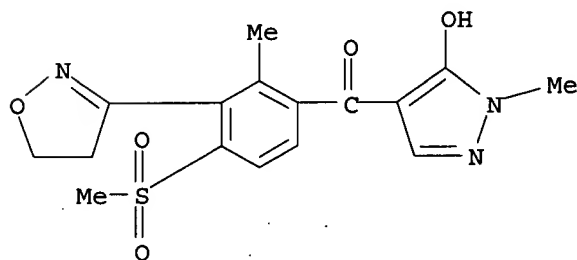
243445-01-4P 243445-02-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of benzoylpyrazole derivs. as herbicides)

RN 210631-68-8 HCAPLUS

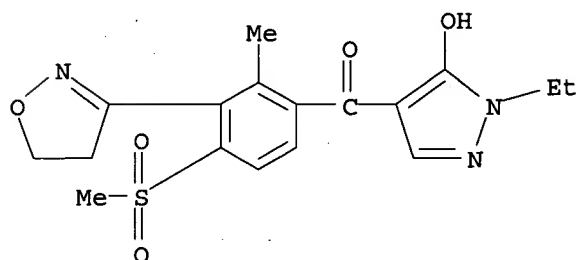
CN Methanone, [3-(4,5-dihydro-3-isoxazolyl)-2-methyl-4-(methylsulfonyl)phenyl] (5-hydroxy-1-methyl-1H-pyrazol-4-yl) - (9CI) (CA INDEX NAME)





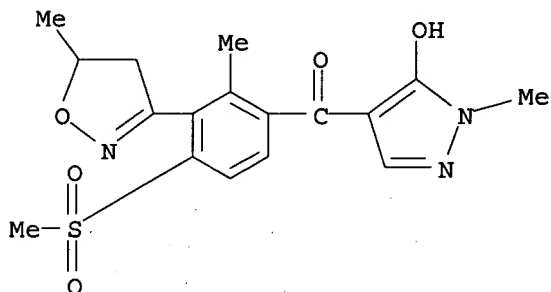
RN 210631-72-4 HCAPLUS

CN Methanone, [3-(4,5-dihydro-3-isoxazolyl)-2-methyl-4-(methylsulfonyl)phenyl] (1-ethyl-5-hydroxy-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



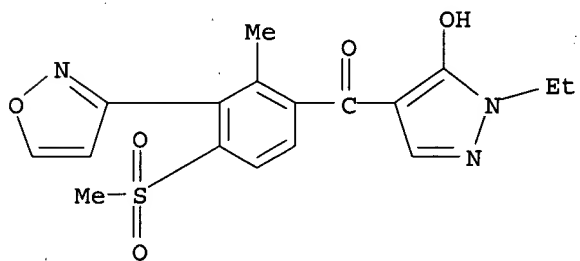
RN 223646-35-3 HCAPLUS

CN Methanone, [3-(4,5-dihydro-5-methyl-3-isoxazolyl)-2-methyl-4-(methylsulfonyl)phenyl] (5-hydroxy-1-methyl-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



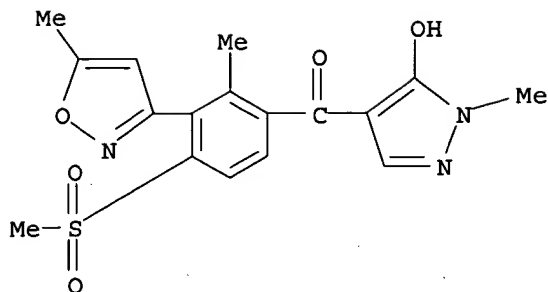
RN 243445-01-4 HCAPLUS

CN Methanone, (1-ethyl-5-hydroxy-1H-pyrazol-4-yl) [3-(3-isoxazolyl)-2-methyl-4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)



RN 243445-02-5 HCAPLUS

CN Methanone, (5-hydroxy-1-methyl-1H-pyrazol-4-yl) [2-methyl-3-(5-methyl-3-isoxazolyl)-4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)



L36 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:311202 HCAPLUS

DN 130:311791

ED Entered STN: 21 May 1999

TI Preparation of benzoylpyrazoles as herbicides

IN Adachi, Hiroyuki; Tanaka, Katsunori; Takahashi, Akihiro; Koguchi, Masami

PA Nippon Soda Co., Ltd., Japan

SO PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C07D413-10

ICS A01N043-80

CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))

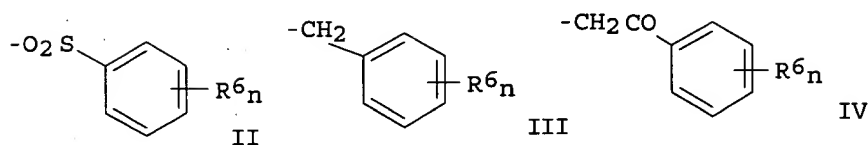
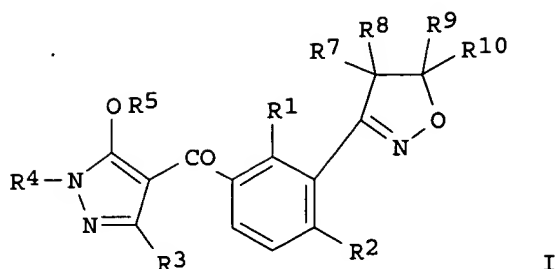
Section cross-reference(s): 5

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9923094	A1	19990514	WO 1998-JP4898	19981029 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9896505	A1	19990524	AU 1998-96505	19981029 <--
	EP 1031573	A1	20000830	EP 1998-950443	19981029 <--
	R: DE, FR, IT				
	BR 9814832	A	20001003	BR 1998-14832	19981029 <--
	US 6147031	A	20001114	US 1998-202204	19981208 <--
PRAI	JP 1997-299208	A	19971030	<--	
	WO 1998-JP4898	W	19981029		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
WO 9923094	ICM	C07D413-10	
	ICS	A01N043-80	
WO 9923094	ECLA	A01N043/80; C07D413/10+261+231	<--
EP 1031573	ECLA	A01N043/80	<--
OS	MARPAT	130:311791	
GI			



AB Title compds. I [R1 = alkyl; R2 = alkylthio, alkylsulfonyl; R3, R4 = H, alkyl; R5 = H, II, III, IV; R6 = halo, alkyl, alkoxy; n = 0, 1, 2, 3, 4, 5; R7, R8, R9, R10 = H, alkyl; R7 (or R8) may form bond with R9 (or R10)] and their salts, useful as herbicides, were prepared Thus, refluxing 3-(4,5-dihydroisoxazol-3-yl)-4-methanesulfonyl-2-methylbenzoic acid with SOCl<sub>2</sub> in benzene in the presence of pyridine for 2 h gave the acid chloride, condensation of which with 5-hydroxy-1-methylpyrazole hydrochloride in CHCl<sub>3</sub> in the presence of Et<sub>3</sub>N and acetone cyanohydrin gave 4-[3-(4,5-dihydroisoxazol-3-yl)-4-methanesulfonyl-2-methylbenzoyl]-5-hydroxy-1-methylpyrazole (V). V showed herbicidal activity at 63 g/ha.

ST benzoylpyrazole prepn herbicide

IT Herbicides

(preparation of benzoylpyrazoles as herbicides)

IT 210631-68-8P 210631-72-4P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of benzoylpyrazoles as herbicides)

IT 223646-33-1P 223646-34-2P 223646-35-3P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of benzoylpyrazoles as herbicides)

IT 70-11-1, Phenacyl bromide 74-85-1, Ethene, reactions 74-86-2, Acetylene, reactions 100-39-0, Benzyl bromide 33641-16-6 106903-47-3 128277-72-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of benzoylpyrazoles as herbicides)

IT 196819-81-5P 196819-82-6P 223646-22-8P 223646-23-9P 223646-24-0P  
223646-25-1P 223646-26-2P 223646-27-3P 223646-28-4P 223646-29-5P  
223646-30-8P 223646-31-9P 223646-32-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of benzoylpyrazoles as herbicides)

RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Basf Aktiengesellschaft; IN 304946 A
- (2) Basf Aktiengesellschaft; EP 811007 A1 HCAPLUS

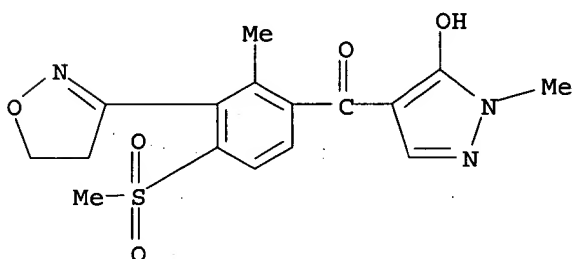
- (3) Basf Aktiengesellschaft; ZA 9601444 A HCAPLUS
- (4) Basf Aktiengesellschaft; BR 9607333 A HCAPLUS
- (5) Basf Aktiengesellschaft; AU 9646655 A HCAPLUS
- (6) Basf Aktiengesellschaft; SK 9701042 A3
- (7) Basf Aktiengesellschaft; CZ 9702473 A3
- (8) Basf Aktiengesellschaft; FI 9703471 A HCAPLUS
- (9) Basf Aktiengesellschaft; NO 9703861 A HCAPLUS
- (10) Basf Aktiengesellschaft; IN 9706123 A1
- (11) Basf Aktiengesellschaft; HU 9800725 A2
- (12) Basf Aktiengesellschaft; AU 9860929 A HCAPLUS
- (13) Basf Aktiengesellschaft; AU 9866133 A HCAPLUS
- (14) Basf Aktiengesellschaft; WO 9626206 A1 1996 HCAPLUS
- (15) Basf Aktiengesellschaft; WO 9831681 A1 1998 HCAPLUS
- (16) Basf Aktiengesellschaft; WO 9831682 A1 1998 HCAPLUS
- (17) Nippon Soda Co Ltd; AU 9724058 A HCAPLUS
- (18) Nippon Soda Co Ltd; WO 9741105 A1 1997 HCAPLUS
- (19) Nissan Chemical IndustriesLtd; EP 282944 A HCAPLUS
- (20) Nissan Chemical IndustriesLtd; US 4885022 A HCAPLUS
- (21) Nissan Chemical IndustriesLtd; US 4948887 A HCAPLUS
- (22) Nissan Chemical IndustriesLtd; US 5175299 A HCAPLUS
- (23) Nissan Chemical IndustriesLtd; BR 8801218 A HCAPLUS
- (24) Nissan Chemical IndustriesLtd; AU 8813099 A HCAPLUS
- (25) Nissan Chemical IndustriesLtd; JP 2173 A 1990

IT 210631-68-8P 210631-72-4P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of benzoylpyrazoles as herbicides)

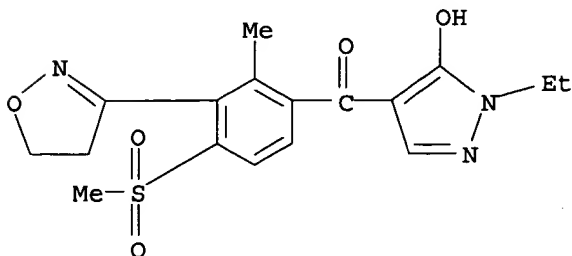
RN 210631-68-8 HCAPLUS

CN Methanone, [3-(4,5-dihydro-3-isoxazolyl)-2-methyl-4-(methylsulfonyl)phenyl] (5-hydroxy-1-methyl-1H-pyrazol-4-yl) - (9CI) (CA INDEX NAME)

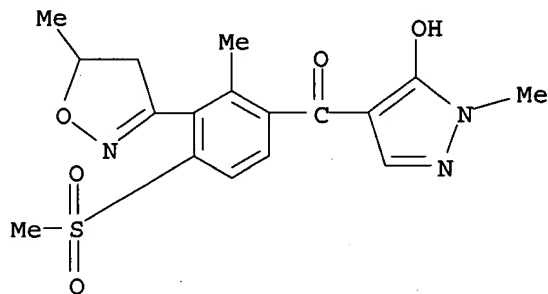


RN 210631-72-4 HCAPLUS

CN Methanone, [3-(4,5-dihydro-3-isoxazolyl)-2-methyl-4-(methylsulfonyl)phenyl] (1-ethyl-5-hydroxy-1H-pyrazol-4-yl) - (9CI) (CA INDEX NAME)



IT 223646-35-3P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of benzoylpyrazoles as herbicides)  
 RN 223646-35-3 HCAPLUS  
 CN Methanone, [3-(4,5-dihydro-5-methyl-3-isoxazolyl)-2-methyl-4-(methylsulfonyl)phenyl] (5-hydroxy-1-methyl-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



L36 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1999:297417 HCAPLUS  
 DN 130:311790  
 ED Entered STN: 14 May 1999  
 TI Preparation of benzoylpyrazole derivatives as herbicides  
 IN Adachi, Hiroyuki; Miyahara, Osamu; Yamaguchi, Masao; Takahashi, Akihiro; Koguchi, Masami  
 PA Nippon Soda Co., Ltd., Japan  
 SO PCT Int. Appl., 106 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 IC ICM C07D403-10  
 ICS C07D405-10; C07D409-10; C07D413-10; C07D417-10; A01N043-56; A01N043-653; A01N043-713; A01N043-76; A01N043-78; A01N043-80; A01N043-82  
 CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 5

FAN.CNT 1

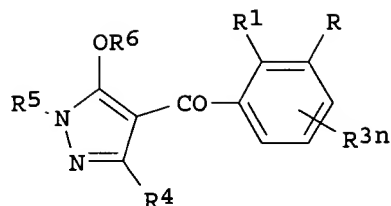
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9921852	A1	19990506	WO 1998-JP4831	19981026 <--
	W: AU, BR, CN, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9896479	A1	19990517	AU 1998-96479	19981026 <--
	JP 11240870	A2	19990907	JP 1998-321552	19981027 <--
PRAI	JP 1997-294259	A	19971027	<--	
	JP 1997-297602	A	19971029	<--	
	WO 1998-JP4831	W	19981026		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9921852	ICM	C07D403-10
	ICS	C07D405-10; C07D409-10; C07D413-10; C07D417-10; A01N043-56; A01N043-653; A01N043-713; A01N043-76; A01N043-78; A01N043-80; A01N043-82

OS MARPAT 130:311790

GI



I

AB Benzoylpyrazoles I [R = (un)substituted 5-membered heterocyclcyl; R1, R2 = halo; R3 = halo, alkylsulfonyl; n = 0, 1, 2; R4 = H, alkyl; R5 = alkyl; and R6 = (un)substituted allyl, naphthylmethyl] were prepared Thus, stirring 4-[2,4-dichloro-3-(3-methylisoxazol-5-yl)benzoyl]-1,3-dimethyl-5-hydroxypyrazole with allyl bromide in DMF in the presence of K2CO3 at room temperature for 6 h gave 55% 4-[2,4-dichloro-3-(3-methylisoxazol-5-yl)benzoyl]-1,3-dimethyl-5-(2-propenyloxy)pyrazole (II). II showed herbicidal activity at 250 g/ha.

ST benzoylpyrazole prepn herbicide; pyrazole benzoyl prepn herbicide

IT Herbicides

(preparation of benzoylpyrazoles as herbicides)

IT	223570-04-5P	223570-05-6P	223570-06-7P	223570-07-8P	223570-08-9P
	223570-09-0P	223570-10-3P	223570-11-4P	223570-12-5P	223570-13-6P
	223570-14-7P	223570-15-8P	223570-16-9P	223570-17-0P	223570-18-1P
	223570-19-2P	223570-20-5P	223570-21-6P	223570-22-7P	223570-23-8P
	223570-24-9P	223570-25-0P	223570-26-1P	223570-27-2P	223570-28-3P
	223570-29-4P	223570-30-7P	223570-31-8P	223570-32-9P	223570-33-0P
	223570-54-5P				

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of benzoylpyrazoles as herbicides)

IT	60-34-4, Methylhydrazine	67-64-1, Acetone, reactions	74-85-1, Ethene, reactions	78-95-5, Chloroacetone	79-24-3, Nitroethane	86-52-2, 1-(Chloromethyl)naphthalene	106-95-6, Allyl bromide, reactions	108-05-4, Acetic acid ethenyl ester, reactions	108-22-5, Isopropenyl acetate	609-02-9, Dimethyl methylmalonate	939-26-4, 2-(Bromomethyl)naphthalene	1521-51-3, 3-Bromocyclohexene	1694-31-1, 4637-24-5, DMF dimethyl acetal	6065-32-3, Ethyl 4-bromocrotonate	33641-16-6	36635-61-7, p-Toluenesulfonylmethyl isocyanide	120100-50-7	181997-79-5	196819-99-5	196820-01-6	198273-12-0	198273-13-1
	198273-14-2																					

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of benzoylpyrazoles as herbicides)

IT	181997-96-6P	196819-51-9P	196819-53-1P	196819-54-2P	196819-68-8P
	197165-33-6P	197165-34-7P	197165-40-5P	197165-41-6P	197165-65-4P
	197165-66-5P	197165-67-6P	197165-68-7P	197165-69-8P	197165-70-1P
	197165-71-2P	197165-72-3P	197165-74-5P	198272-66-1P	198272-73-0P
	198272-74-1P	198272-78-5P	198272-79-6P	198272-82-1P	198272-83-2P
	198272-87-6P	198272-89-8P	198272-94-5P	198272-96-7P	198272-97-8P
	198272-98-9P	198272-99-0P	210576-74-2P	210577-35-8P	
	223570-34-1P	223570-35-2P	223570-36-3P	223570-38-5P	223570-39-6P
	223570-40-9P				

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of benzoylpyrazoles as herbicides)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Basf Aktiengesellschaft; WO 9831682 A1 1998 HCAPLUS
- (2) Nippon Soda Co Ltd; JP 10237072 A HCAPLUS
- (3) Nippon Soda Co Ltd; JP 107673 A
- (4) Nippon Soda Co Ltd; ZA 9708794 A HCAPLUS
- (5) Nippon Soda Co Ltd; ZA 9709402 A HCAPLUS
- (6) Nippon Soda Co Ltd; AU 9716708 A HCAPLUS
- (7) Nippon Soda Co Ltd; WO 9821187 A1 HCAPLUS
- (8) Nippon Soda Co Ltd; WO 9735850 A1 1997 HCAPLUS
- (9) Nippon Soda Co Ltd; WO 9741105 A1 1997 HCAPLUS

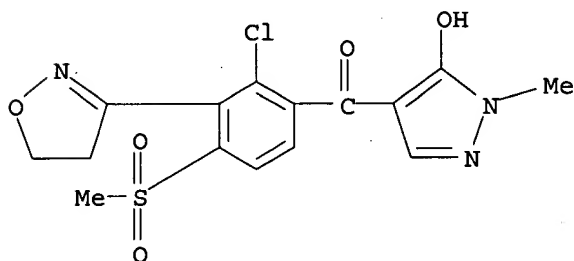
IT 210576-74-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation of benzoylpyrazoles as herbicides)

RN 210576-74-2 HCAPLUS

CN Methanone, [2-chloro-3-(4,5-dihydro-3-isoxazolyl)-4-(  
(methylsulfonyl)phenyl)] (5-hydroxy-1-methyl-1H-pyrazol-4-yl)- (9CI) (CA  
INDEX NAME)



L36 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:1458 HCAPLUS

DN 128:61512

ED Entered STN: 02 Jan 1998

TI Preparation of herbicidal pyridinyl and pyrazolylphenyl ketones

IN Patel, Kanu Maganbhai; Rorer, Morris Padgett; Tseng, Chi-Ping

PA E. I. Du Pont de Nemours &amp; Co., USA

SO PCT Int. Appl., 165 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07D213-50

ICS A01N043-40; A01N043-56; A01N043-78; A01N043-80; C07D213-53;

C07D231-12; C07D231-20; C07D277-24; C07D401-12

CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 5

FAN. CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9746530	A1	19971211	WO 1997-US9569	19970602 <--
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2257196	AA	19971211	CA 1997-2257196	19970602 <--
AU 9732973	A1	19980105	AU 1997-32973	19970602 <--
EP 922032	A1	19990616	EP 1997-928809	19970602 <--
R: DE, FR, IT				

ZA 9704916	A	19990126	ZA 1997-4916	19970604 <--
PRAI US 1996-19352P	P	19960606	<--	
US 1996-33633P	P	19961220	<--	
WO 1997-US9569	W	19970602	<--	

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9746530	ICM	C07D213-50
	ICS	A01N043-40; A01N043-56; A01N043-78; A01N043-80; C07D213-53; C07D231-12; C07D231-20; C07D277-24; C07D401-12

OS MARPAT 128:61512

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title compds. [I; Q = II-IV, R10C(O)CHR11; A = 5-10 membered monocyclic or fused bicyclic ring system; R1 = H, C1-6 alkyl, halo, etc.; W = N, CH; R3 = SH, C1-6 alkylthio, phenylthio, etc.; R4 = C1-3 alkyl, C1-3 alkoxy, C1-3 alkylthio, halo; R5 = SH, C1-6 alkylthio, phenylthio, etc.; R6 = H, C1-6 alkyl, C1-6 haloalkyl, etc.; R7 = H, C1-6 alkyl, C1-6 haloalkyl, etc.; R8 = H, C1-6 alkyl, C1-6 haloalkyl, etc.; R9 = H, C2-6 alkoxy carbonyl, CN, etc.; R10 = C1-6 alkyl, C1-6 haloalkyl, (un)substituted C3-6 cycloalkyl; R11 = CN, C2-6 alkoxy carbonyl, C2-6 alkyl carbonyl, etc.; m = 0-3; p = 0-4] and their (N)-oxides and agriculturally suitable salts, useful for controlling undesired vegetation, were prepared. Thus, treatment of 2,5-dimethyl-3-(1-methyl-1H-pyrazol-3-yl)-4-(methylsulfonyl)benzoic acid with oxalyl chloride and DMF in CH<sub>2</sub>Cl<sub>2</sub> followed by reaction of the acid chloride with 1,3-cyclohexanedione in the presence of Et<sub>3</sub>N in CH<sub>2</sub>Cl<sub>2</sub>, and treatment of the resulting 3-oxo-1-cyclohexen-1-yl 2,5-dimethyl-3-(1-methyl-1H-pyrazol-3-yl)-4-(methylsulfonyl)benzoate with acetone cyanohydrin and Et<sub>3</sub>N in MeCN afforded the title compound V which showed complete control against, e.g., redroot pigweed and speedwell in postemergence tests.

ST herbicide pyridinylphenyl pyrazolylphenyl ketone prepn

IT Herbicides

(preparation of herbicidal pyridinyl and pyrazolylphenyl ketones)

IT.	200273-20-7P	200273-21-8P	200273-22-9P	200273-23-0P	200273-24-1P
	200273-25-2P	200273-26-3P	200273-27-4P	200273-29-6P	200273-30-9P
	200273-31-0P	200273-32-1P	200273-33-2P	200273-34-3P	200273-35-4P
	200273-37-6P	200273-38-7P	200273-39-8P	200273-40-1P	200273-41-2P
	200273-42-3P	200273-43-4P	200273-44-5P	200273-45-6P	
	<b>200273-46-7P</b>	200273-48-9P	200273-49-0P		

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of herbicidal pyridinyl and pyrazolylphenyl ketones)

IT	394-35-4, Methyl 2-fluorobenzoate	504-02-9, 1,3-Cyclohexanedione
	590-92-1, 3-Bromopropionic acid	4001-61-0, 2,5-Dimethylthiophenol
	20154-03-4, 3-(Trifluoromethyl)pyrazole	124252-41-1,
	4-Tributylstannylpyridine	144740-56-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of herbicidal pyridinyl and pyrazolylphenyl ketones)

IT	21875-91-2P	104216-44-6P	153329-75-0P	200273-50-3P	200273-51-4P
	200273-52-5P	200273-53-6P	200273-54-7P	200273-55-8P	200273-56-9P
	200273-57-0P	200273-58-1P	200273-59-2P	200273-60-5P	

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of herbicidal pyridinyl and pyrazolylphenyl ketones)

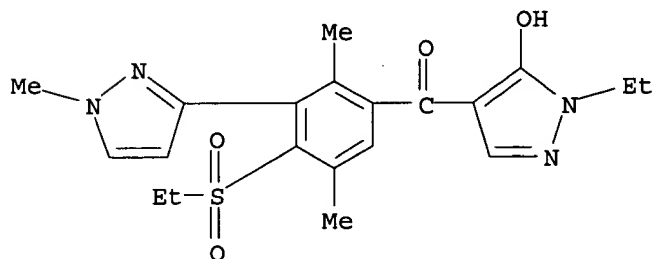
IT **200273-46-7P**



RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of herbicidal pyridinyl and pyrazolylphenyl ketones)

RN 200273-46-7 HCAPLUS

CN Methanone, (1-ethyl-5-hydroxy-1H-pyrazol-4-yl) [4-(ethylsulfonyl)-2,5-dimethyl-3-(1-methyl-1H-pyrazol-3-yl)phenyl]- (9CI) (CA INDEX NAME)



L36 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:740213 HCAPLUS

DN 127:346402

ED Entered STN: 24 Nov 1997

TI Preparation of novel heterocycle-substituted benzene derivatives and herbicides

IN Adachi, Hiroyuki; Yamaguchi, Masao; Miyahara, Osamu; Tanaka, Katsunori; Kawana, Takashi; Takahashi, Akihiro; Koguchi, Masami; Yamagishi, Hideki

PA Nippon Soda Co., Ltd., Japan

SO PCT Int. Appl., 154 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C07D231-20

ICS C07D403-10; C07D413-10; C07D417-10; A01N043-56; A01N043-76; A01N043-78; A01N043-80; A01N043-82

CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))

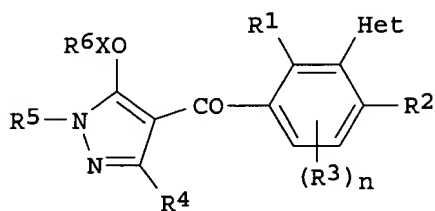
Section cross-reference(s): 5

FAN.CNT 8

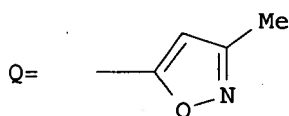
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9741105	A1	19971106	WO 1997-JP1423	19970424 <--
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RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
JP 10237072	A2	19980908	JP 1997-38505	19970206 <--
AU 9724058	A1	19971119	AU 1997-24058	19970424 <--
CN 1216534	A	19990512	CN 1997-194086	19970424 <--
WO 9821187	A1	19980522	WO 1997-JP3736	19971016 <--
W: JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
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PRAI JP 1996-131170	A	19960426	<--	
JP 1996-317154	A	19961113	<--	
JP 1996-356866	A	19961226	<--	
WO 1997-JP1423	W	19970424	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
WO 9741105	ICM	C07D231-20	
	ICS	C07D403-10; C07D413-10; C07D417-10; A01N043-56; A01N043-76; A01N043-78; A01N043-80; A01N043-82	
WO 9821187	ECLA	A01N043/80; C07D261/08; C07D413/10+261+231	<--
OS MARPAT 127:346402			
GI			



I



AB Benzoylpyrazole derivs. represented by general formula [I; R1, R2, R3 = halo, C1-6 alkyl, C1-6 alkoxy, NO2, cyano, C1-6 haloalkyl, haloalkoxy, or alkylthio, alkylsulfinyl, or alkylsulfonyl; n = 0, 1, 2; Het = an optionally substituted saturated or unsatd. 5-membered heterocyclic group which is bonded to the benzene ring at a carbon atom and which contains one to four hetero-atoms selected from among N, O and S and is substituted with R7 and R8; R4 = hydrogen, C1-6 alkyl, haloalkyl, or hydroxyalkyl, C1-6 alkoxy-C1-6 alkyl; R5 = C1-6 alkyl, C3-8 cycloalkyl, (un)substituted Ph; X = SO2, (CH2)mCO, optionally alkyl-substituted C1-6 alkylene, a single bond; wherein m = 0, 1-3; R6 = optionally substituted phenyl] are prepared. The above compds. exhibit an excellent herbicidal activity with good selectivity for weeds at a low dosage. Thus, 4-[2,4-dichloro-3-(3-methyl-1,2-isoxazol-5-yl)benzoyl]-1,3-dimethyl-5-hydroxypyrazole was dissolved in CH2Cl2, followed by adding an aqueous K2CO3, p-toluenesulfonyl chloride, and benzyltrimethylammonium chloride in this order, and the resulting mixture was stirred at room temperature overnight to give I (R1 = R2

= Cl, R3 = H, R4 = R5 = Me, R6X = p-toluenesulfonyl, Het = Q). I (R1 = F, R2 = SO2Me, R3 = R4 = H, R5 = Me, R6X = p-toluenesulfonyl, Het = Q) at 250 g/ha postemergence controlled 100% Abutilon theophrasti, Echinochloa crus-galli, Xanthium pensylvanicum, and Setaria faberii and gave no damage to corn seedlings.

ST isoxazolylbenzoylpyrazole prepn herbicide; benzoylpyrazole isoxazolyl prepn herbicide

IT Herbicides

(preparation of novel heterocycle-substituted benzene derivs. as herbicides)

IT	198271-92-0P	198271-93-1P	198271-94-2P	198271-95-3P	198271-96-4P
	198271-97-5P	198271-98-6P	198271-99-7P	198272-00-3P	198272-01-4P
	198272-02-5P	198272-03-6P	198272-04-7P	198272-05-8P	198272-06-9P
	198272-07-0P	198272-08-1P	198272-09-2P	198272-10-5P	198272-11-6P
	198272-12-7P	198272-13-8P	198272-14-9P	198272-15-0P	198272-16-1P
	198272-17-2P	198272-18-3P	198272-19-4P	198272-20-7P	198272-21-8P
	198272-23-0P	198272-24-1P	198272-25-2P	198272-26-3P	198272-27-4P
	198272-28-5P	198272-29-6P	198272-30-9P	198272-31-0P	198272-32-1P
	198272-33-2P	198272-34-3P	198272-35-4P	198272-36-5P	198272-37-6P

198272-38-7P 198272-39-8P 198272-40-1P 198272-41-2P 198272-42-3P  
 198272-43-4P 198272-44-5P 198272-45-6P 198272-46-7P 198272-47-8P  
 198273-15-3P 198273-16-4P 198273-92-6P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of novel heterocycle-substituted benzene derivs. as herbicides)

IT 60-34-4, Methyl hydrazine 68-12-2, Dimethylformamide, reactions  
 70-11-1, Phenacyl bromide 74-93-1, Methanethiol, reactions 75-16-1,  
 Methylmagnesium bromide 78-95-5, Chloroacetone 79-24-3, Nitroethane  
 79-46-9, 2-Nitropropane 98-59-9, p-Toluenesulfonyl chloride 100-39-0,  
 Benzyl bromide 108-05-4, Acetic acid ethenyl ester, reactions  
 108-22-5, Isopropenyl acetate 108-24-7, Acetic anhydride 609-02-9,  
 Dimethyl methylmalonate 1694-31-1, tert-Butyl acetoacetate 2208-07-3,  
 Ethyl acetimidate hydrochloride 4637-24-5 5188-07-8, Sodium  
 methylmercaptide 5470-11-1, Hydroxylamine hydrochloride 7803-57-8,  
 Hydrazine hydrate 33641-16-6, 5-Hydroxy-1-methylpyrazole hydrochloride  
 36635-61-7, p-Toluenesulfonylmethylisocyanide 106903-47-3,  
 1-Ethyl-5-hydroxypyrazole hydrochloride 120100-50-7 182061-44-5  
 196819-94-0 196820-01-6, 3-Methoxycarbonyl-2,6-dichlorobenzoyl chloride  
 197165-73-4 198273-00-6 198273-01-7 198273-02-8 198273-03-9  
 198273-04-0 198273-05-1 198273-06-2 198273-07-3 198273-08-4  
 198273-09-5 198273-10-8 198273-11-9 198273-12-0, Methyl  
 3-amino-2,4-dichlorobenzoate 198273-13-1, Methyl 3-cyano-2,4-  
 dichlorobenzoate 198273-14-2, Methyl 2,4-dichloro-3-hydroxyiminobenzoate  
 RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of novel heterocycle-substituted benzene derivs. as herbicides)

IT 181997-97-7P 182060-63-5P 196819-51-9P 196819-53-1P  
 196819-54-2P 196819-55-3P 196819-57-5P 196819-68-8P 196819-99-5P  
 197165-33-6P 197165-34-7P 197165-35-8P 197165-40-5P 197165-41-6P  
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 198272-90-1P 198272-91-2P 198272-92-3P 198272-93-4P 198272-94-5P  
 198272-95-6P 198272-96-7P 198272-97-8P 198272-98-9P 198272-99-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of novel heterocycle-substituted benzene derivs. as herbicides)

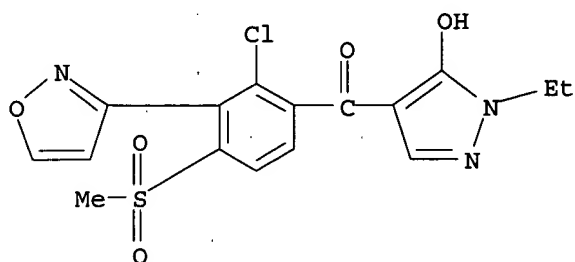
IT 182060-63-5P 198272-51-4P 198272-58-1P  
 198272-59-2P 198272-60-5P 198272-61-6P  
 198272-64-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of novel heterocycle-substituted benzene derivs. as herbicides)

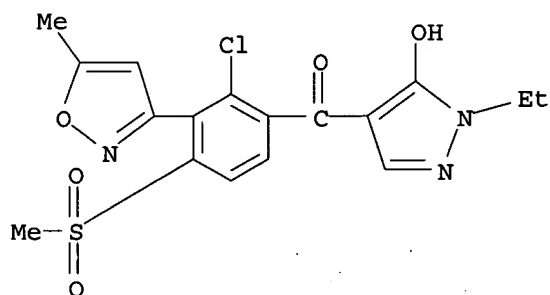
RN 182060-63-5 HCAPLUS

CN Methanone, [2-chloro-3-(3-isoxazolyl)-4-(methylsulfonyl)phenyl] (1-ethyl-5-hydroxy-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



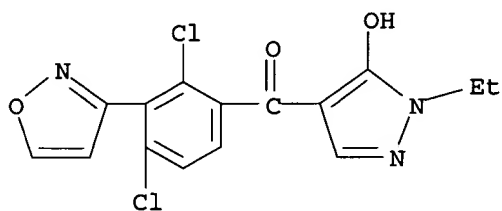
RN 198272-51-4 HCAPLUS

CN Methanone, [2-chloro-3-(5-methyl-3-isoxazolyl)-4-(methylsulfonyl)phenyl] (1-ethyl-5-hydroxy-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



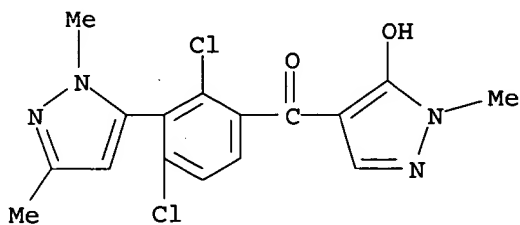
RN 198272-58-1 HCAPLUS

CN Methanone, [2,4-dichloro-3-(3-isoxazolyl)phenyl] (1-ethyl-5-hydroxy-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



RN 198272-59-2 HCAPLUS

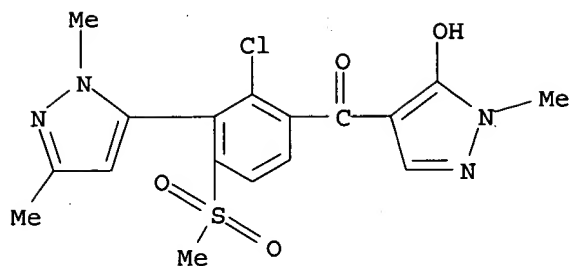
CN Methanone, [2,4-dichloro-3-(1,3-dimethyl-1H-pyrazol-5-yl)phenyl] (5-hydroxy-1-methyl-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



RN 198272-60-5 HCAPLUS

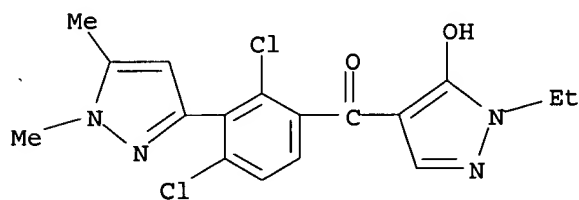
CN Methanone, [2-chloro-3-(1,3-dimethyl-1H-pyrazol-5-yl)-4-(methylsulfonyl)phenyl] (5-hydroxy-1-methyl-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)

INDEX NAME)



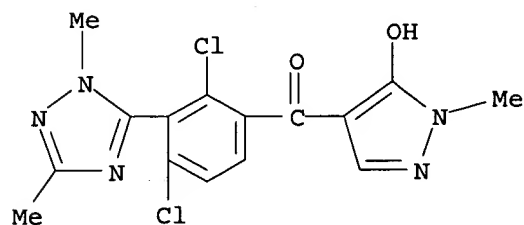
RN 198272-61-6 HCAPLUS

CN Methanone, [2,4-dichloro-3-(1,5-dimethyl-1H-pyrazol-3-yl)phenyl] (1-ethyl-5-hydroxy-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



RN 198272-64-9 HCAPLUS

CN Methanone, [2,4-dichloro-3-(1,3-dimethyl-1H-1,2,4-triazol-5-yl)phenyl] (5-hydroxy-1-methyl-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



=&gt; =&gt; d all hitstr tot 138

L38 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:795582 HCAPLUS

DN 132:9948

ED Entered STN: 17 Dec 1999

TI Benzoyl derivative herbicides, enhanced by fertilizers and adjuvants.

IN Bratz, Matthias; Berghaus, Rainer; Otten, Martina; Sievernich, Bernd; Kibler, Elmar

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM A01N043-80

ICS A01N043-78; C05G003-02; C05G003-06; A01N043-80; A01N059-00; A01N025-30; A01N043-78; A01N059-00; A01N025-39

CC 5-3 (Agrochemical Bioregulators)

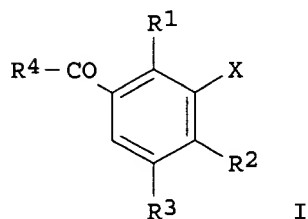
Section cross-reference(s): 19

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9963823	A1	19991216	WO 1999-EP3676	19990527 <--
	W: AL, AU, BG, BR, BY, CA, CN, CZ, GE, HU, ID, IL, IN, JP, KR, KZ, LT, LV, MK, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, UA, US, UZ, VN, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2334467	AA	19991216	CA 1999-2334467	19990527 <--
	AU 9943703	A1	19991230	AU 1999-43703	19990527 <--
	AU 760776	B2	20030522		
	BR 9910995	A	20010213	BR 1999-10995	19990527 <--
	EP 1085808	A1	20010328	EP 1999-926445	19990527 <--
	EP 1085808	B1	20030122		
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	JP 2002517415	T2	20020618	JP 2000-552907	19990527 <--
	NZ 509007	A	20021126	NZ 1999-509007	19990527 <--
	AT 231338	E	20030215	AT 1999-926445	19990527 <--
	PT 1085808	T	20030630	PT 1999-926445	19990527 <--
	ES 2191435	T3	20030901	ES 1999-926445	19990527 <--
	US 6479437	B1	20021112	US 2000-701875	20001205 <--
	BG 105027	A	20011130	BG 2000-105027	20001206 <--
	ZA 2001000170	A	20020108	ZA 2001-170	20010108 <--
PRAI	DE 1998-19825588	A	19980609	<--	
	WO 1999-EP3676	W	19990527		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9963823	ICM	A01N043-80
	ICS	A01N043-78; C05G003-02; C05G003-06; A01N043-80; A01N059-00; A01N025-30; A01N043-78; A01N059-00; A01N025-39
US 6479437	ECLA	A01N043/78+M; A01N043/80+M; C05G003/02
OS	MARPAT 132:9948	
GI		



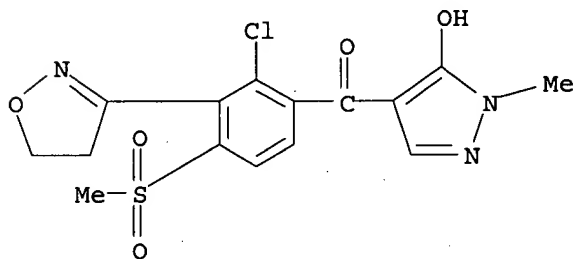
AB Benzoyl derivs. I [R1, R2 = H, halo, C1-6 alkyl, C1-6 alkylthio, C1-6 alkylsulfinyl, C1-6 haloalkyl, C1-6 alkoxy or C1-6 haloalkoxy; R3 = H, halo or C1-6 alkyl; X = (un)substituted isoxazolyl, 4,5-dihydroisoxazolyl or thiazolyl; R4 = (un)substituted pyrazol-4-yl] or their salts are herbicides. Their activity is enhanced by a fertilizer containing nitrogen and an adjuvant.

ST benzoyl deriv herbicide fertilizer adjuvant enhancer

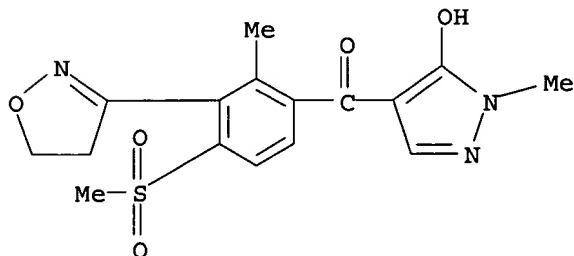
IT Fertilizers

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(ammonium nitrate-urea; benzoyl derivative herbicides, enhanced by fertilizers and adjuvants.)

IT Herbicides  
(benzoyl derivative herbicides, enhanced by fertilizers and adjuvants.)  
IT Fertilizers  
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(benzoyl derivative herbicides, enhanced by fertilizers and adjuvants.)  
IT 26264-06-2, Wettol EM1 106392-12-5, Pluronic PE 10500 245670-49-9,  
Wettol D1  
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(benzoyl derivative herbicides, enhanced by fertilizers and adjuvants.)  
IT 210576-74-2 210631-68-8  
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(herbicide, enhanced by fertilizers and adjuvants.)  
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) Anon; EP 0584227 A HCAPLUS  
(2) Nalewaja, J; US 5658855 A 1997 HCAPLUS  
(3) Penkov; SU 701626 A 1997 HCAPLUS  
(4) Thiele, G; WO 9219107 A 1992 HCAPLUS  
(5) Wolfgang Von, D; WO 9626206 A 1996 HCAPLUS  
IT 210576-74-2 210631-68-8  
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(herbicide, enhanced by fertilizers and adjuvants.)  
RN 210576-74-2 HCAPLUS  
CN Methanone, [2-chloro-3-(4,5-dihydro-3-isoxazolyl)-4-(  
(methylsulfonyl)phenyl] (5-hydroxy-1-methyl-1H-pyrazol-4-yl)- (9CI) (CA  
INDEX NAME)



RN 210631-68-8 HCAPLUS  
CN Methanone, [3-(4,5-dihydro-3-isoxazolyl)-2-methyl-4-(  
(methylsulfonyl)phenyl] (5-hydroxy-1-methyl-1H-pyrazol-4-yl)- (9CI) (CA  
INDEX NAME)



L38 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 1999:736669 HCAPLUS  
DN 131:351318  
ED Entered STN: 19 Nov 1999  
TI Preparation of 3-isoxazolinyl-substituted acylbenzenes  
IN Rheinheimer, Joachim; Von Deyn, Wolfgang;

Gebhardt, Joachim; Rack, Michael; Lochtmann, Rene;  
 Gotz, Norbert; Keil, Michael; Witschel, Matthias; Hagen,  
 Helmut; Misslitz, Ulf; Baumann, Ernst

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 64 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM C07D261-04

ICS C07D413-10; C07C251-40; C07C319-14

CC 28-6 (Heterocyclic Compounds (More Than One Hetero Atom))

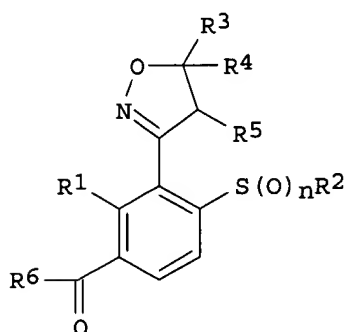
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9958509	A1	19991118	WO 1999-EP3006	19990504 <--
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	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19820722	C1	19991104	DE 1998-19820722	19980511 <--
	DE 19852095	A1	20000518	DE 1998-19852095	19981112
	CA 2331816	AA	19991118	CA 1999-2331816	19990504 <--
	AU 9939305	A1	19991129	AU 1999-39305	19990504 <--
	AU 772781	B2	20040506		
	BR 9910326	A	20010130	BR 1999-10326	19990504 <--
	EP 1077955	A1	20010228	EP 1999-922160	19990504 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002514630	T2	20020521	JP 2000-548313	19990504 <--
	NZ 508648	A	20030926	NZ 1999-508648	19990504 <--
	WO 2000029394	A1	20000525	WO 1999-EP8746	19991112
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1129082	A1	20010905	EP 1999-959276	19991112
	EP 1129082	B1	20040929		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002529540	T2	20020910	JP 2000-582381	19991112
	AT 277915	E	20041015	AT 1999-959276	19991112
	US 6525204	B1	20030225	US 2000-674535	20001102 <--
	NO 2000005652	A	20001109	NO 2000-5652	20001109 <--
	US 6469176	B1	20021022	US 2001-831400	20010509
	US 2003018200	A1	20030123	US 2002-180608	20020627 <--
	US 6608209	B2	20030819		
	US 2003028033	A1	20030206	US 2002-223019	20020819
	US 6670482	B2	20031230		
	US 2003220505	A1	20031127	US 2003-436739	20030514
	US 6706886	B2	20040316		
PRAI	DE 1998-19820722	A	19980511	<--	
	DE 1998-19852095	A	19981112		
	WO 1999-EP3006	W	19990504		
	WO 1999-EP8746	W	19991112		
	US 2000-674535	A3	20001102		
	US 2001-831400	A3	20010509		
	US 2002-223019	A3	20020819		



## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9958509	ICM	C07D261-04
	ICS	C07D413-10; C07C251-40; C07C319-14
WO 9958509	ECLA	C07C251/48; C07C319/14; C07D261/04; C07D413/10+261+231
DE 19852095	ECLA	C07C251/48; C07C319/14; C07D261/04; C07D413/10+261+231
WO 2000029394	ECLA	C07C251/48; C07C319/14; C07D261/04; C07D413/10+261+231
US 6469176	ECLA	C07C251/48; C07C319/14; C07D261/04; C07D413/10+261+231
US 2003028033	ECLA	C07D261/04; C07D261/08
US 2003220505	ECLA	C07C251/48; C07C319/14; C07D261/04; C07D261/08; C07D413/10+261+231
OS	MARPAT	131:351318
GI		



I

- AB The title compds. [I; R1 = H, C1-6 alkyl; R2 = C1-6 alkyl; R3-R5 = H, C1-6 alkyl; R4R5 = bond; R6 = heteroring; n = 0-2], useful as chemical intermediates especially for the manufacture of agrochems., were prepared by condensation of 2,6-O2N(R1)C6H3Me with organic nitrites, cyclization of the product oximes 2,6-O2NR1C6H3CH:NOH with alkenes R3R4C:CHR5 (R3-R5 as above), NO2-group reduction in the resulting 3-isoxazolinyl nitrobenzenes, conversion of the anilines with dialkyl disulfides R2SSR2 (R2 as above), benzene ring bromination of benzene thioethers, S-oxidation of bromobenzene thioethers and catalytic carboxylation (Br substitution) with CO in the presence of alcs. R6OH (R6 as above). Also claimed were 2-isoxazolinylanilines, their intermediates and new methods for producing the intermediate products. Thus, 1-methyl-4-(3-(4,5-dihydroisoxazol-3-yl)-2-methyl-4-methylsulfonylbenzoyl)-5-hydroxypyrazole was prepared in 6 steps as described above.
- ST isoxazolinyl substituted acylbenzene prepn agrochem intermediate; isoxazolylmethylsulfonylbenzoylhydroxypyrazole prepn agrochem intermediate; hydroxypyrazole isoxazolylmethylsulfonylbenzoyl prepn agrochem intermediate
- IT 83-01-2, Diphenylcarbamoyle chloride  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (acylation of thioanisole derivative; preparation of 3-isoxazolinyl-substituted acylbenzenes)
- IT 87-59-2, 2,3-Dimethylaniline 570-24-1, 2-Methyl-6-nitroaniline 22364-25-6, 4-Bromo-2,3-dimethylaniline 250593-02-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (conversion into thioether; preparation of 3-isoxazolinyl-substituted acylbenzenes)
- IT 624-92-0, Dimethyl disulfide  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (conversion of aniline derivative into thioether; preparation of

- 3-isoxazolinyl-substituted acylbenzenes)
- IT 74-85-1, Ethene, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(cyclocondensation with nitrobenzaldoxime acid chloride derivative;  
preparation  
of 3-isoxazolinyl-substituted acylbenzenes)
- IT 33641-15-5, 1-Methyl-5-hydroxypyrazole  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(in carboxylation of isoxazolinylbenzene derivative with carbon monoxide;  
preparation of 3-isoxazolinyl-substituted acylbenzenes)
- IT 128277-66-7P 250592-94-0P 250592-95-1P 250592-96-2P 250592-97-3P  
250592-99-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(intermediate; preparation of 3-isoxazolinyl-substituted acylbenzenes)
- IT 544-16-1, n-Butyl nitrite  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(oximation of nitroxylenes; preparation of 3-isoxazolinyl-substituted  
acylbenzenes)
- IT 83-41-0, 3-Nitro-o-xylene 83-42-1, 2-Chloro-6-nitrotoluene 250593-01-2  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(oximation; preparation of 3-isoxazolinyl-substituted acylbenzenes)
- IT 250592-92-8P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and S-oxidation; preparation of 3-isoxazolinyl-substituted  
acylbenzenes)
- IT 250592-98-4P 250593-00-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and S-oxidation; preparation of 3-isoxazolinyl-substituted  
acylbenzenes)
- IT 250592-91-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and bromination; preparation of 3-isoxazolinyl-substituted  
acylbenzenes)
- IT 66794-10-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and bromination; preparation of 3-isoxazolinyl-substituted  
acylbenzenes)
- IT 247922-29-8P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and carboxylation; preparation of 3-isoxazolinyl-substituted  
acylbenzenes)
- IT 250592-87-1P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and chlorination and cyclocondensation with ethylene;  
preparation of  
3-isoxazolinyl-substituted acylbenzenes)
- IT 250592-93-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and conversion to sulfochloride; preparation of 3-isoxazolinyl-  
substituted acylbenzenes)
- IT 250592-89-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and conversion to thioether; preparation of 3-isoxazolinyl-  
substituted acylbenzenes)
- IT 250592-88-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation and hydrogenation; preparation of 3-isoxazolinyl-substituted acylbenzenes)

IT 1885-76-3P, 2-Methyl-6-nitrobenzonitrile 41085-40-9P 107096-52-6P,  
2-Methyl-6-nitrobenzaldehyde 210631-68-8P 250593-03-4P  
250593-05-6P 250593-06-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of 3-isoxazolinyl-substituted acylbenzenes)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

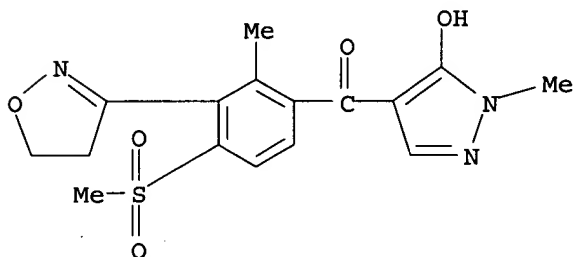
- (1) Basf Ag; WO 9626200 A 1996 HCAPLUS
- (2) Basf Ag; WO 9626206 A 1996 HCAPLUS
- (3) Basf Aktiengesellschaft; WO 9831681 A 1998 HCAPLUS
- (4) Basf Aktiengesellschaft; WO 9831676 A 1998 HCAPLUS
- (5) Farbwerke Vormals Meister Lucius & BrÜning In HOchst; DE 107095 C 1899
- (6) Giam, C; Journal of the Chemical Society Chemical Communications 1980, P756 HCAPLUS
- (7) Oae, S; Bulletin of the Chemical Society of Japan 1980, V53(7), P2023 HCAPLUS
- (8) Rottig, W; Journal Fur Praktische Chemie 1935, V142, P35 HCAPLUS

IT 210631-68-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of 3-isoxazolinyl-substituted acylbenzenes)

RN 210631-68-8 HCAPLUS

CN Methanone, [3-(4,5-dihydro-3-isoxazolyl)-2-methyl-4-(methylsulfonyl)phenyl] (5-hydroxy-1-methyl-1H-pyrazol-4-yl) - (9CI) (CA INDEX NAME)



L38 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:717863 HCAPLUS

DN 131:310637

ED Entered STN: 10 Nov 1999

TI Method for preparation of benzoylpyrazoles

IN Rheinheimer, Joachim; von Deyn, Wolfgang;  
Gebhardt, Joachim

PA BASF A.-G., Germany

SO Ger., 6 pp.

CODEN: GWXXAW

DT Patent

LA German

IC ICM C07D413-10

ICI C07D413-10, C07D231-20, C07D261-08

CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19820722	C1	19991104	DE 1998-19820722	19980511 <--
	CA 2331816	AA	19991118	CA 1999-2331816	19990504 <--
	WO 9958509	A1	19991118	WO 1999-EP3006	19990504 <--
	W: AL, AU, BG, BR, BY, CA, CN, CZ, GE, HU, ID, IL, IN, JP, KR, KZ, LT, LV, MK, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, UA, US, ZA,				

AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE

AU 9939305	A1	19991129	AU 1999-39305	19990504 <--
AU 772781	B2	20040506		
BR 9910326	A	20010130	BR 1999-10326	19990504 <--
TR 200003332	T2	20010221	TR 2000-200003332	19990504 <--
EP 1077955	A1	20010228	EP 1999-922160	19990504 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002514630	T2	20020521	JP 2000-548313	19990504 <--
NZ 508648	A	20030926	NZ 1999-508648	19990504 <--
US 6525204	B1	20030225	US 2000-674535	20001102 <--
NO 2000005652	A	20001109	NO 2000-5652	20001109 <--
ZA 2000007286	A	20011210	ZA 2000-7286	20001208 <--
US 2003018200	A1	20030123	US 2002-180608	20020627 <--
US 6608209	B2	20030819		
US 2003028033	A1	20030206	US 2002-223019	20020819
US 6670482	B2	20031230		
US 2003216580	A1	20031120	US 2003-417083	20030417 <--
PRAI DE 1998-19820722	A	19980511	<--	
DE 1998-19852095	A	19981112		
WO 1999-EP3006	W	19990504		
US 2000-674535	A3	20001102		
US 2001-831400	A3	20010509		
US 2002-180608	A3	20020627		

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 19820722	ICM	C07D413-10
	ICI	C07D413-10, C07D231-20, C07D261-08
WO 9958509	ECLA	C07C251/48; C07C319/14; C07D261/04; C07D413/10+261+231
US 2003028033	ECLA	C07D261/04; C07D261/08

OS MARPAT 131:310637

AB Treatment of 1-methyl-5-hydroxypyrazole with 3-(3-bromo-2-chloro-6-methylsulfonylphenyl)-4,5-dihydroisoxazole, K<sub>2</sub>CO<sub>3</sub>, Et<sub>3</sub>N and CO in dioxane in the presence of (Ph<sub>3</sub>P)<sub>2</sub>PdCl<sub>2</sub> gave 67% 1-methyl-4-(2-chloro-3-(4,5-dihydroisoxazol-3-yl)-4-methylsulfonylbenzoyl)-5-hydroxypyrazole. Similarly prepared was 85% 1-methyl-4-(3-(4,5-dihydroisoxazol-3-yl)-2-methyl-4-methylsulfonylbenzoyl)-5-hydroxypyrazole.

ST benzoyl pyrazole prepn; isoxazolylbenzoylpyrazole prepn

IT 33641-15-5, 1-Methyl-5-hydroxypyrazole 247922-28-7 247922-29-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of benzoylpyrazoles)

IT 210576-74-2P 210631-68-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of benzoylpyrazoles)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; EP 0344775 HCAPLUS

(2) Anon; WO 9626206 HCAPLUS

(3) Anon; WO 9735850 HCAPLUS

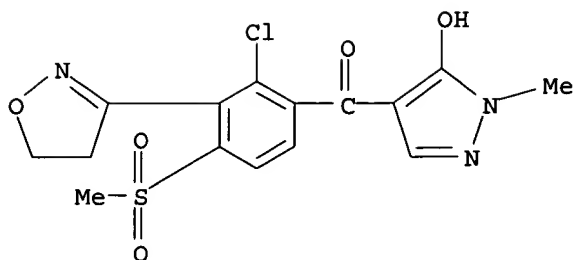
IT 210576-74-2P 210631-68-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

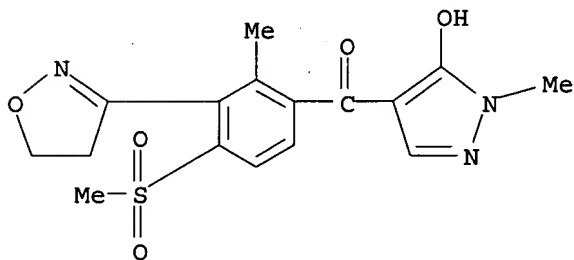
(preparation of benzoylpyrazoles)

RN 210576-74-2 HCAPLUS

CN Methanone, [2-chloro-3-(4,5-dihydro-3-isoxazolyl)-4-(methylsulfonyl)phenyl] (5-hydroxy-1-methyl-1H-pyrazol-4-yl) - (9CI) (CA INDEX NAME)



RN 210631-68-8 HCAPLUS  
 CN Methanone, [3-(4,5-dihydro-3-isoxazolyl)-2-methyl-4-(methylsulfonyl)phenyl] (5-hydroxy-1-methyl-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



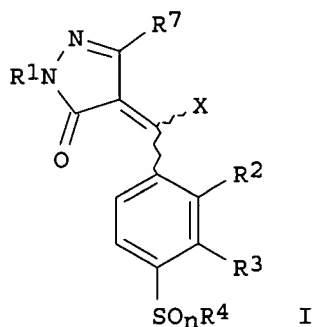
L38 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1999:354487 HCAPLUS  
 DN 131:5255  
 ED Entered STN: 09 Jun 1999  
 TI Preparation of benzylidenepyrazolones as herbicides.  
 IN Rheinheimer, Joachim; Witschel, Matthias; Engel, Stefan; Baumann, Ernst; Von Deyn, Wolfgang; Hill, Regina Luise; Mayer, Guido; Misslitz, Ulf; Wagner, Oliver; Otten, Martina; Westphalen, Karl-Otto; Walter, Helmut  
 PA BASF Aktiengesellschaft, Germany  
 SO PCT Int. Appl., 58 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA German  
 IC ICM C07D231-18  
 ICS C07D231-16; A01N043-56  
 CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 5  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9926930	A2	19990603	WO 1998-EP7099	19981106 <--
	WO 9926930	A3	19990819		
	W: AL, AU, BG, BR, BY, CA, CN, CZ, GE, HU, ID, IL, JP, KR, KZ, LT, LV, MK, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, UA, US, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
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	AU 9916670	A1	19990615	AU 1999-16670	19981106 <--
	AU 757752	B2	20030306		
	BR 9814232	A	20001003	BR 1998-14232	19981106 <--

EP 1044191	A2	20001018	EP 1998-961147	19981106 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO				
JP 2001524471	T2	20011204	JP 2000-522088	19981106 <--
NZ 505142	A	20030328	NZ 1998-505142	19981106 <--
ZA 9810625	A	20000522	ZA 1998-10625	19981120 <--
US 6271179	B1	20010807	US 2000-554184	20000511 <--
BG 104471	A	20010831	BG 2000-104471	20000523 <--
US 6500950	B1	20021231	US 2001-765626	20010122 <--
PRAI DE 1997-19751722	A	19971121	<--	
WO 1998-EP7099	W	19981106		
US 2000-554184	A3	20000511		

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
WO 9926930	ICM	C07D231-18	
	ICS	C07D231-16; A01N043-56	
US 6271179	ECLA	A01N043/56; A01N043/78; A01N043/80; C07D231/16; C07D231/20; C07D413/06+261+231	<--
US 6500950	ECLA	A01N043/56; A01N043/78; A01N043/80; C07D231/16; C07D231/20; C07D413/06+261+231	<--
OS MARPAT 131:5255			
GI			



AB Title compds. [I; R1, R6 = (substituted) alkyl; R2 = (substituted) alkyl, alkoxy, halo, nitro, cyano; R3 = H, halo, nitro, cyano, NR5R6, OCOR5, NR5COR6, CO2R5, COSR5, CONR5R6, alkoxyiminoalkyl, alkoxy carbonyl, (substituted) alkyl, alkoxy, alkylthio, alkenyl, Ph, PhO, 5- 6 membered (unsatd.) heterocyclyl; R4 = alkyl, haloalkyl; R3R4 = (substituted) (unsatd.) 2-3 membered bridge which can contain 1 S, SO, or SO2; R5 = H, (substituted) alkyl; R7 = H, alkyl, haloalkyl; n = 0, 1, 2; X = H, Cl, Br], were prepared Thus, [2-chloro-3-(4,5-dihydroisoxazol-3-yl)-4-methylsulfonylphenyl] (5-hydroxy-1-methyl-1H-pyrazol-4-yl) ketone was refluxed 7 h with POCl3 and cat. DMF to give cis-4-[chloro[2-chloro-3-(4,5-dihydroisoxazol-3-yl)-4-methylsulfonylphenyl]methylene]-2-methyl-2,4-dihydropyrazol-3-one. The 2-Et derivative of the above compound postemergent gave >98% control of a variety of weeds while leaving corn unaffected.

ST benzylidenepyrazolone prepn herbicide; pyrazolone benzylidene prepn herbicide; chlorodihydroisoxazolylmethylsulfonylphenylmethylenemethyldihydropyrazolone prepn herbicide

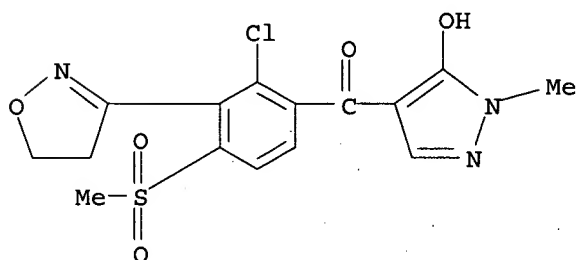
IT Herbicides

(preparation of benzylidenepyrazolones as herbicides)

IT 225648-12-4P 225648-23-7P 225648-30-6P 225648-36-2P 225648-42-0P  
225648-48-6P 225648-54-4P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of benzylidenepyrazolones as herbicides)  
 IT 210576-74-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of benzylidenepyrazolones as herbicides)  
 IT 210576-74-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of benzylidenepyrazolones as herbicides)  
 RN 210576-74-2 HCAPLUS  
 CN Methanone, [2-chloro-3-(4,5-dihydro-3-isoxazolyl)-4-(methylsulfonyl)phenyl] (5-hydroxy-1-methyl-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



L38 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1996:616370 HCAPLUS  
 DN 125:247812  
 ED Entered STN: 17 Oct 1996  
 TI Preparation of 4-benzoylpyrazoles as herbicides  
 IN Von Deyn, Wolfgang; Hill, Regina Luise; Kardorff, Uwe; Engel, Stefan; Otten, Martina; Vossen, Marcus; Plath, Peter; Rang, Harald; Harreus, Albrecht; et al.  
 PA BASF A.-G., Germany  
 SO PCT Int. Appl., 50 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA German  
 IC ICM C07D409-10  
 ICS C07D413-10; C07D417-10; A01N043-56  
 CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 5

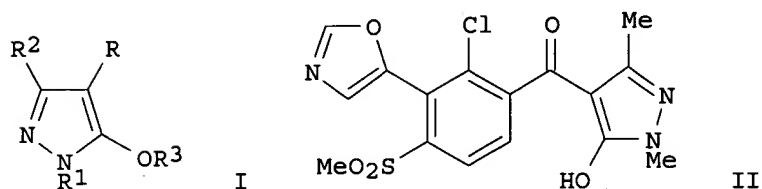
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9626206	A1	19960829	WO 1996-EP635	19960214 <--
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	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
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	AU 9646655	A1	19960911	AU 1996-46655	19960214 <--
	AU 710172	B2	19990916		
	BR 9607333	A	19971125	BR 1996-7333	19960214 <--
	EP 811007	A1	19971210	EP 1996-902274	19960214 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
	CN 1175951	A	19980311	CN 1996-192084	19960214 <--
	CN 1071757	B	20010926		
	JP 11500438	T2	19990112	JP 1996-525370	19960214 <--
	EE 3486	B1	20010815	EE 1997-190	19960214 <--
	PL 183233	B1	20020628	PL 1996-322277	19960214 <--
	CZ 293254	B6	20040317	CZ 1997-2473	19960214 <--
	ZA 9601444	A	19970825	ZA 1996-1444	19960223 <--
	US 5846907	A	19981208	US 1997-875664	19970730 <--

BG 63503	B1	20020329	BG 1997-101825	19970808 <--
FI 9703471	A	19970822	FI 1997-3471	19970822 <--
NO 9703861	A	19971022	NO 1997-3861	19970822 <--
LT 4307	B	19980325	LT 1997-145	19970902 <--
LV 11895	B	19980320	LV 1997-177	19970923 <--
PRAI DE 1995-19506572	A	19950224	<--	
WO 1996-EP635	W	19960214	<--	

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
WO 9626206	ICM	C07D409-10	
	ICS	C07D413-10; C07D417-10; A01N043-56	
US 5846907	ECLA	A01N043/56; A01N043/74; A01N043/80; C07D231/24; C07D401/10+231+213; C07D401/10+231+215; C07D403/0+231+207; C07D403/10+235C+231; C07D403/10+239B+231; C07D403/10+249B+231; C07D405/10+307B+231; C07D405/10+317+231; C07D409/10+333B+231; C07D409/10+339+231; C07D411/10+327+231; C07D413/10+263+231; C07D413/10+261+231; C07D413/10+271+231; C07D417/10+275+231; C07D417/10+277+231; C07D417/0+277B+231; C07D417/10+279+231; C07D417/10+285+231; C07D417/10+285B+231	<--
OS	MARPAT 125:247812		
GI			



AB Title compds. [I; R = COZR4; R1 = alkyl; R2 = H, (halo)alkyl; R3 = H, alkyl- or -(alkyl)phenylsulfonyl; R4 = heterocyclyl; Z = (un)substituted 1,3-phenylene] were prepared Thus, 1,3-dimethyl-5-hydroxypyrazole was acylated by 2-chloro-4-methylsulfonyl-3-(5-oxazolyl)benzoyl chloride to give title compound II. Data for herbicidal activity of 2 I were given.

ST benzoylpyrazole prepn herbicide

IT Herbicides

(4-benzoylpyrazoles)

IT 182060-43-1P 182060-47-5P 182060-50-0P 182060-55-5P  
182060-59-9P 182060-63-5P 182060-67-9P  
182060-71-5P 182060-76-0P 182060-80-6P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 4-benzoylpyrazoles as herbicides)

IT 151-00-8, Isobutyraldehyde oxime 5203-77-0, 1,3-Dimethyl-5-hydroxypyrazole 82961-52-2 105917-80-4 121359-48-6,  
2-(Tributylstannyl)thiazole 182003-84-5 182061-44-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 4-benzoylpyrazoles as herbicides)

IT	106904-09-0P	120100-04-1P	120100-44-9P	181997-71-7P	181997-72-8P
	181997-73-9P	181997-74-0P	181997-75-1P	181997-76-2P	181997-77-3P
	181997-78-4P	181997-79-5P	181997-80-8P	181997-81-9P	181997-82-0P
	181997-83-1P	181997-84-2P	181997-85-3P	181997-86-4P	181997-87-5P
	181997-88-6P	181997-89-7P	181997-90-0P	181997-91-1P	181997-92-2P
	181997-93-3P	181997-94-4P	181997-95-5P	181997-96-6P	181997-97-7P



181997-98-8P 181997-99-9P 181998-00-5P 181998-01-6P 181998-02-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

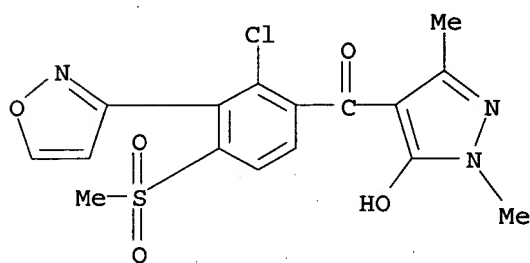
(preparation of 4-benzoylpyrazoles as herbicides)

IT 182060-50-0P 182060-55-5P 182060-59-9P  
 182060-63-5P 182060-67-9P 182060-76-0P  
 182060-80-6P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except  
 adverse); BSU (Biological study, unclassified); SPN (Synthetic  
 preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of 4-benzoylpyrazoles as herbicides)

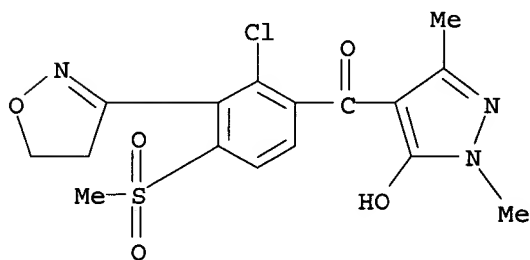
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CN Methanone, [2-chloro-3-(3-isoxazolyl)-4-(methylsulfonyl)phenyl] (5-hydroxy-  
 1,3-dimethyl-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



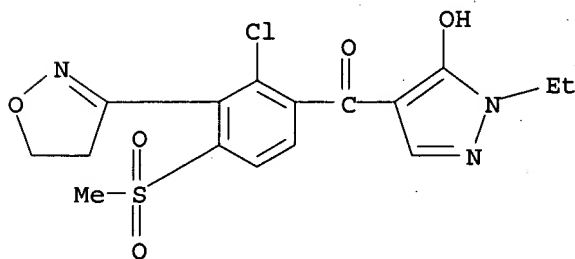
RN 182060-55-5 HCAPLUS

CN Methanone, [2-chloro-3-(4,5-dihydro-3-isoxazolyl)-4-(  
 methylsulfonyl)phenyl] (5-hydroxy-1,3-dimethyl-1H-pyrazol-4-yl)- (9CI)  
 (CA INDEX NAME)



RN 182060-59-9 HCAPLUS

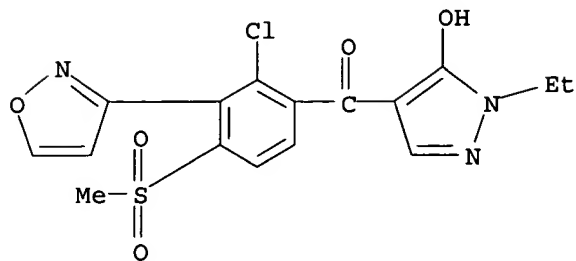
CN Methanone, [2-chloro-3-(4,5-dihydro-3-isoxazolyl)-4-(  
 methylsulfonyl)phenyl] (1-ethyl-5-hydroxy-1H-pyrazol-4-yl)- (9CI) (CA  
 INDEX NAME)



RN 182060-63-5 HCAPLUS

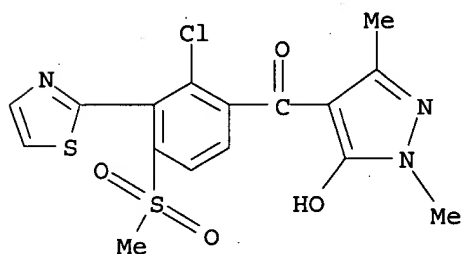
CN Methanone, [2-chloro-3-(3-isoxazolyl)-4-(methylsulfonyl)phenyl] (1-ethyl-5-

hydroxy-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



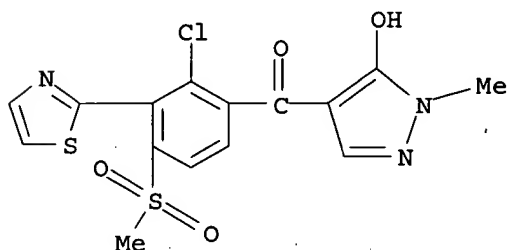
RN 182060-67-9 HCAPLUS

CN Methanone, [2-chloro-4-(methanesulfonyl)-3-(2-thiazolyl)phenyl] (5-hydroxy-1,3-dimethyl-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



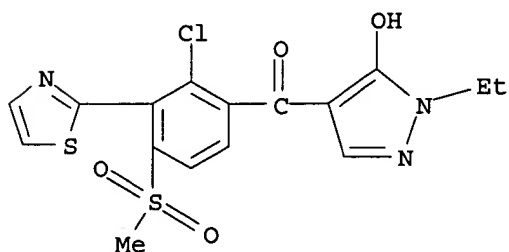
RN 182060-76-0 HCAPLUS

CN Methanone, [2-chloro-4-(methanesulfonyl)-3-(2-thiazolyl)phenyl] (5-hydroxy-1-methyl-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



RN 182060-80-6 HCAPLUS

CN Methanone, [2-chloro-4-(methanesulfonyl)-3-(2-thiazolyl)phenyl] (1-ethyl-5-hydroxy-1H-pyrazol-4-yl)- (9CI) (CA INDEX NAME)



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L39 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1998:509191 HCAPLUS  
 DN 129:122657  
 ED Entered STN: 17 Aug 1998  
 TI Preparation of 2-chloro-3-(4,5-dihydroisoxazol-3-yl)-4-methylsulfonylbenzoic acids and related compounds.  
 IN Rheinheimer, Joachim; Von Deyn, Wolfgang; Gebhardt, Joachim; Hill, Regina Luise; Rack, Michael; König, Hartmann; Gotz, Norbert; Maywald, Volker; Kardorff, Uwe  
 PA BASF A.-G., Germany  
 SO PCT Int. Appl., 30 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA German  
 IC ICM C07D261-04  
 ICS C07D261-20  
 CC 28-6 (Heterocyclic Compounds (More Than One Hetero Atom))  
 FAN.CNT 3

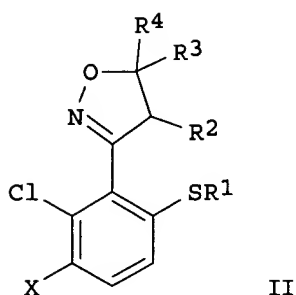
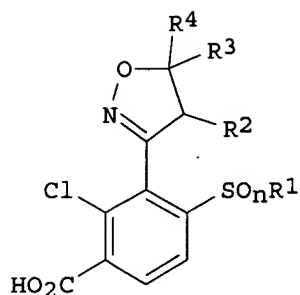
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9831676	A1	19980723	WO 1998-EP66	19980108 <--
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	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9862076	A1	19980807	AU 1998-62076	19980108 <--
	EP 966452	A1	19991229	EP 1998-904041	19980108 <--
	EP 966452	B1	20030502		
	R: CH, DE, FR, GB, LI				
	JP 2001508075	T2	20010619	JP 1998-533617	19980108 <--
	TW 462965	B	20011111	TW 1998-87100495	19980115 <--
	US 6124469	A	20000926	US 1999-341519	19990713 <--
	US 2002025910	A1	20020228	US 2000-748006	20001227 <--
PRAI	DE 1997-19701446	A	19970117	<--	
	DE 1997-19709118	A	19970306		
	WO 1998-EP66	W	19980108		
	US 1998-91300	A1	19980616	<--	

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9831676	ICM	C07D261-04
	ICS	C07D261-20
WO 9831676	ECLA	C07D261/04; C07D261/20 <--
US 6124469	ECLA	C07D231/20; C07D261/04; C07D261/20; C07D413/10+261+231; C07D417/10+277B+231 <--
US 2002025910	ECLA	C07D231/20; C07D261/04; C07D261/20; C07D413/10+261+231; C07D417/10+277B+231 <--

OS CASREACT 129:122657; MARPAT 129:122657

GI



AB Title compds. [I; n = 0-2; R1 = alkyl, haloalkyl; R2-R4 = H, alkyl, haloalkyl; R3R4 = (alkyl-substituted) alkylene] were prepared by treatment of thioethers (II; R1-R4 as above; X = H) with a brominating agent to give II (R1-R4 as above; X = Br) followed by treatment with a Grignard reagent and CO2 followed by optional oxidation. Thus, 3-(2-chloro-6-methylthiophenyl)-4,5-dihydroisoxazole in H2SO4 was treated with Br2 to give 82.6% 3-(3-bromo-2-chloro-6-methylthiophenyl)-4,5-dihydroisoxazole. The latter in THF was treated with Me2CHMgBr and then with dry ice to give 68% 2-chloro-3-(4,5-dihydroisoxazol-3-yl)-4-methylthiobenzoic acid. This in HOAc was treated with Na2WO4 and H2O2 to give 90.9% 2-chloro-3-(4,5-dihydroisoxazol-3-yl)-4-methylsulfonylbenzoic acid.

ST chlorodihydroisoxazolmethylsulfonylbenzoate prepn;  
isoxazolylmethylsulfonylbenzoate chloro dihydro prepn

IT Carboxylation

(carboxylation of 3-(3-bromo-2-chloro-6-methylthiophenyl)-4,5-dihydroisoxazole with Grignard reagents and carbon dioxide; preparation of 2-chloro-3-(4,5-dihydroisoxazol-3-yl)-4-methylsulfonylbenzoic acids and related compds.)

IT 210405-98-4P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of 2-chloro-3-(4,5-dihydroisoxazol-3-yl)-4-methylsulfonylbenzoic acids and related compds.)

IT 210405-99-5P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)  
(preparation of 2-chloro-3-(4,5-dihydroisoxazol-3-yl)-4-methylsulfonylbenzoic acids and related compds.)

IT 83-38-5, 2,6-Dichlorobenzaldehyde 5188-07-8, Sodium thiomethoxide

RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of 2-chloro-3-(4,5-dihydroisoxazol-3-yl)-4-methylsulfonylbenzoic acids and related compds.)

IT 25185-95-9P 201987-39-5P, 2-Chloro-6-methylthiobenzaldehyde  
210405-94-0P, 2-Chloro-6-methylthiobenzaldoxime 210405-95-1P  
210405-96-2P 210405-97-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of 2-chloro-3-(4,5-dihydroisoxazol-3-yl)-4-methylsulfonylbenzoic acids and related compds.)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Basf Ag; WO 9626200 A 1996 HCAPLUS
- (2) Basf Ag; WO 9626206 A 1996 HCAPLUS
- (3) Pfizer Inc; WO 9514680 A 1995 HCAPLUS

=> d 137 all fhitstr tot

L37 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1998:509195 HCAPLUS  
 DN 129:136166  
 ED Entered STN: 17 Aug 1998  
 TI Preparation of 4-(3-heterocyclylbenzoyl)pyrazoles as herbicides.  
 IN Von Deyn, Wolfgang; Hill, Regina Luise; Baumann,  
 Ernst; Engel, Stefan; Mayer, Guido;  
 Rheinheimer, Joachim; Witschel, Matthias; Misslitz,  
 Ulf; Wagner, Oliver; Otten, Martina; Walter, Helmut  
 ; Westphalen, Karl-Otto  
 PA BASF A.-G., Germany  
 SO PCT Int. Appl., 393 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA German  
 IC ICM C07D413-10  
 ICS A01N043-72; A01N043-48; C07D417-10; C07D409-10; C07D405-10;  
 C07D401-10; C07D403-10; C07D411-10; C07D231-20; C07D231-24  
 CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))  
 FAN.CNT 3

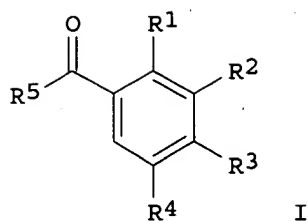
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	W: AL, AU, AZ, BG, BR, BY, CA, CN, CZ, EE, GE, HU, ID, IL, JP, KG, KR, KZ, LT, LV, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
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	AU 9866133	A1	19980807	AU 1998-66133	19980108 <--
	AU 742514	B2	20020103		
	EP 958292	A1	19991124	EP 1998-907930	19980108 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, LV, FI, RO				
	EE 9900292	A	20000215	EE 1999-292	19980108 <--
	BR 9806917	A	20000418	BR 1998-6917	19980108 <--
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	CN 1104429	B	20030402	CN 1998-802992	19980108 <--
	TW 513414	B	20021211	TW 1998-87100464	19980115 <--
	US 6165944	A	20001226	US 1998-91292	19980616 <--
	NO 9903522	A	19990916	NO 1999-3522	19990716 <--
	US 2002025910	A1	20020228	US 2000-748006	20001227 <--
PRAI	DE 1997-19701446	A	19970117	<--	
	DE 1997-19740494	A	19970915	<--	
	WO 1998-EP70	W	19980108	<--	
	US 1998-91300	A1	19980616	<--	

## CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION
	WO 9831682	ICM	C07D413-10
		ICS	A01N043-72; A01N043-48; C07D405-10; C07D401-10; C07D231-20; C07D231-24
	WO 9831682	ECLA	C07D231/20; C07D413/10+261+231; C07D417/10+277B+231; C07D261/04; C07D261/20
	US 6165944	ECLA	C07D231/20; C07D413/10+261+231; C07D417/10+277B+231; C07D261/04; C07D261/20
	US 2002025910	ECLA	C07D231/20; C07D261/04; C07D261/20; C07D413/10+261+231; C07D417/10+277B+231

OS MARPAT 129:136166  
 GI

*Too many  
 hit structures  
 to display for  
 these 2 references*



- AB Title compds. [I; R1, R3 = H, NO<sub>2</sub>, halo, cyano, alkyl, haloalkyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, alkylsulfinyl, haloalkylsulfinyl, alkylsulfonyl, haloalkylsulfonyl, aminosulfonyl, N-alkylaminosulfonyl, N,N-dialkylaminosulfonyl, N-alkylsulfonylamino, N-haloalkylsulfonylamino, N-alkyl-N-alkylsulfonylamino or N-alkyl-N-haloalkylsulfonylamino; R2 = (substituted) 5-6 membered heterocyclyl containing 1-4 heteroatoms selected from O, S, N; R4 = H, halo, alkyl; R5 = substituted pyrazol-4-yl], were prepared as herbicides (no data). Thus, Me 2-chloro-3-hydroxyiminomethyl-4-methylsulfonylbenzoate (preparation given) in CH<sub>2</sub>Cl<sub>2</sub> was treated with ethylene, NaOAc, and aqueous NaOCl to give 90% Me 2-chloro-3-(4,5-dihydroisoxazol-3-yl)-4-methylsulfonylbenzoate. This was converted to the acid chloride, which was coupled with 5-hydroxy-1-methylpyrazole in dioxane/Et<sub>3</sub>N to give 92% 4-[2-chloro-3-(4,5-dihydroisoxazol-3-yl)-4-methylsulfonylbenzoyl]-5-hydroxy-1-methyl-1H-pyrazole.
- ST heterocyclylbenzoylpyrazole prepn herbicide; pyrazole heterocyclylbenzoyl prepn herbicide
- IT Herbicides  
(preparation of 4-(3-heterocyclylbenzoyl)pyrazoles as herbicides)
- IT **210577-17-6P**  
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of 4-(3-heterocyclylbenzoyl)pyrazoles as herbicides)
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| 210575-29-4P        | 210575-30-7P        | 210575-31-8P        | 210575-32-9P | 210575-33-0P |
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RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of 4-(3-heterocyclylbenzoyl)pyrazoles as herbicides)

IT 74-85-1, Ethene, reactions 75-36-5, Acetyl chloride 115-07-1,  
1-Propene, reactions 122-51-0, Triethyl orthoformate 124-68-5,  
2,2-Dimethylethanolamine 1235-21-8 1576-35-8 2757-23-5,  
Chlorocarbonylsulfenyl chloride 4009-98-7, Methoxymethyltriphenylphospho  
nium chloride 33641-15-5, 5-Hydroxy-1-methylpyrazole 35613-84-4  
82961-52-2 107296-34-4, 1-Ethyl-5-hydroxypyrazole 196819-99-5, Methyl  
2,4-dichloro-3-formylbenzoate 196820-01-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 4-(3-heterocyclylbenzoyl)pyrazoles as herbicides)

IT 106904-09-0P 120100-04-1P 120100-44-9P 181997-72-8P 181997-73-9P  
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210578-16-8P 210578-17-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation of 4-(3-heterocyclylbenzoyl)pyrazoles as herbicides)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Basf Aktiengesellschaft; WO 9626206 A 1996 HCAPLUS
- (2) Nissan Chemical Industries Ltd; GB 2122188 A 1984 HCAPLUS
- (3) Nissan Chemical Industries Ltd; EP 0203428 A 1986 HCAPLUS
- (4) Toshiaki, Y; US 4460597 A 1984 HCAPLUS

IT 210577-17-6P

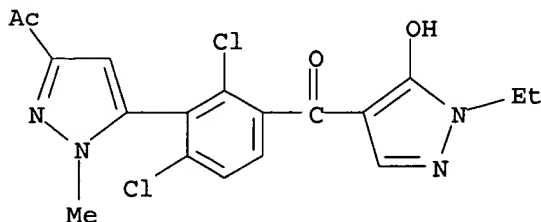
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN

(Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of 4-(3-heterocyclylbenzoyl)pyrazoles as herbicides)

RN 210577-17-6 HCAPLUS

CN Ethanone, 1-[5-[2,6-dichloro-3-[(1-ethyl-5-hydroxy-1H-pyrazol-4-yl)carbonyl]phenyl]-1-methyl-1H-pyrazol-3-yl]- (9CI) (CA INDEX NAME)



L37 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:509194 HCAPLUS

DN 129:136165

ED Entered STN: 17 Aug 1998

TI Preparation of heterocyclylbenzoylpyrazoles and related compounds as herbicides.

IN Von Deyn, Wolfgang; Hill, Regina Luise; Kardorff, Uwe; Baumann, Ernst; Engel, Stefan; Mayer, Guido; Witschel, Matthias; Rack, Michael; Gotz, Norbert; Gebhardt, Joachim; Misslitz, Ulf; Walter, Helmut; Westphalen, Karl-Otto; Otten, Martina; Rheinheimer, Joachim; et al.

PA BASF A.-G., Germany

SO PCT Int. Appl., 173 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM C07D413-10

ICS A01N043-72; C07D498-10; C07D417-10; C07D261-04; C07D291-04; C07D273-00; C07D263-10; C07D261-20; C07D277-10; C07D277-34; C07D403-10; C07D419-10; C07D498-10; C07D311-00; C07D261-00

CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 5

FAN.CNT 3

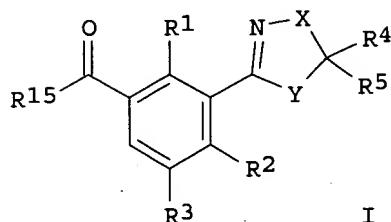
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
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AU 9860929	A1	19980807	AU 1998-60929	19980108 <--
EP 958291	A1	19991124	EP 1998-905274	19980108 <--
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CN 1117750	B	20030813	CN 1998-802797	19980108 <--
TW 505640	B	20021011	TW 1998-87100502	19980115 <--
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ZA 9800363	A	19990716	ZA 1998-363	19980116 <--



NO 9903521	A	19990915	NO 1999-3521	19990716 <--
BG 64232	B1	20040630	BG 1999-103658	19990810 <--
US 2002025910	A1	20020228	US 2000-748006	20001227 <--
PRAI DE 1997-19701446	A	19970117	<--	
WO 1998-EP69	W	19980108	<--	
US 1998-91300	A1	19980616	<--	

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
WO 9831681	ICM	C07D413-10	
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WO 9831681	ECLA	C07D261/04; C07D261/20	<--
US 2002025910	ECLA	C07D231/20; C07D261/04; C07D261/20; C07D413/10+261+231; C07D417/10+277B+231	<--
OS	MARPAT 129:136165		
GI			



AB Title compds. [I; R1, R2 = H, NO2, halo, cyano, alkyl, haloalkyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, alkylsulfinyl, haloalkylsulfinyl, alkylsulfonyl, haloalkylsulfonyl; R3 = H, halo, alkyl; R4, R5 = H, halo, cyano, NO2, alkyl, alkoxyalkyl, dialkoxyalkyl, dialkylaminoalkyl, (substituted), Ph, PhCH2, etc.; R4R5 = O, S; X = O, S, NR9, CO, CR10R11; R4R9 or R4R10 or R5R12 or R5R13 = (substituted) (interrupted) alkylene; Y = O, S, NR12, CO, CR13R14; R9, R12 = H, alkyl; R10-R14 = H, alkyl, haloalkyl, alkoxy carbonyl, haloalkoxy carbonyl, CONR7R8; R15 = substituted 4-pyrazolyl], were prepared as herbicides and plant growth regulators (no data). Thus, 5-hydroxy-1-methylpyrazole in dioxane was treated with 2-chloro-3-(4,5-dihydroisoxazol-3-yl)-4-methylsulfonylbenzoyl chloride (preparation given) in dioxane and with Et3N in dioxane followed by 2 h stirring to give 92% 4-[2-chloro-3-(4,5-dihydroisoxazol-3-yl)-4-methylsulfonylbenzoyl]-5-hydroxy-1-methyl-1H-pyrazole.

ST heterocyclylbenzoylpyrazole prepn herbicide; pyrazole heterocyclylbenzoyl prepn herbicide

IT 210576-18-4P 210576-20-8P 210576-22-0P  
210576-24-2P 210576-26-4P 210576-28-6P  
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210631-79-1P 210631-80-4P 210631-81-5P  
210631-82-6P 210631-83-7P 210631-84-8P  
210631-85-9P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of heterocyclylbenzoylpyrazoles and related compds. as herbicides)

IT 75-36-5, Acetyl chloride 115-07-1, 1-Propene, reactions 116-11-0,  
2-Methoxy-1-propene 124-68-5, 2,2-Dimethylethanolamine 33641-15-5,  
5-Hydroxy-1-methylpyrazole 58861-74-8 82961-52-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of heterocyclylbenzoylpyrazoles and related compds. as herbicides)

IT 106904-09-0P 120100-04-1P 120100-44-9P 181997-71-7P 181997-72-8P  
181997-73-9P 181997-79-5P 181997-96-6P 181997-98-8P 209795-86-8P  
209795-87-9P 210157-91-8P 210405-99-5P 210577-33-6P 210577-34-7P  
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210631-98-4P 210631-99-5P 210632-00-1P 210632-01-2P 210632-02-3P  
210632-03-4P 210632-05-6P 210632-08-9P 210632-10-3P 210632-12-5P  
210632-14-7P 210632-16-9P 210632-18-1P 210632-20-5P 210632-21-6P  
210632-22-7P 210632-23-8P 210632-24-9P 210632-26-1P 210632-27-2P  
210632-28-3P 210632-29-4P 210632-30-7P 210632-31-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of heterocyclylbenzoylpyrazoles and related compds. as herbicides)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

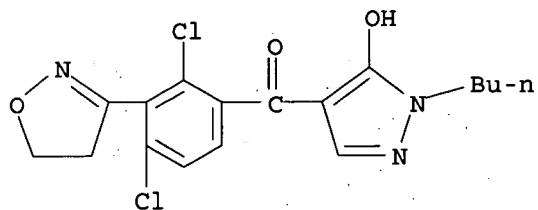
- (1) Basf Ag; WO 9626206 A 1996 HCAPLUS
- (2) Nissan Chemical Ind Ltd; EP 0203428 A 1986 HCAPLUS
- (3) Sankyo Co; DE 2513750 A 1975 HCAPLUS
- (4) Sankyo Co; FR 2316235 A 1977 HCAPLUS

IT 210576-18-4P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of heterocyclylbenzoylpyrazoles and related compds. as herbicides)

RN 210576-18-4 HCAPLUS

CN Methanone, (1-butyl-5-hydroxy-1H-pyrazol-4-yl) [2,4-dichloro-3-(4,5-dihydro-3-isoxazolyl)phenyl]- (9CI) (CA INDEX NAME)



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